

CATALOG

2025–2026

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COLORADO MESA UNIVERSITY CATALOG, 2025-2026

The 2025-2026 Colorado Mesa University Catalog contains a summary of campus offerings, policies, and requirements. Because the catalog is compiled in advance of the academic year it covers, changes may occur. All catalog information is subject to change without notice or obligation. More information on departments, programs, and academic resources, including contact information, can also be found on the CMU Academics web page. Previous catalogs can be found in CMU's Catalog Archives.

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How to Use the Catalog

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This catalog is designed to assist all types of students - those considering college for the first time, those thinking of transferring from a community college or four-year institution, and those already attending Colorado Mesa University - in choosing the program of study that best fits their aspirations and goals. It includes information about admissions guidelines, financial aid, and academic requirements to allow students to make educated decisions about their futures. This catalog also describes aspects of student life at CMU, opportunities for personal growth outside the classroom, and procedures and policies pertinent to a student's success at CMU.

For those thinking about applying to Colorado Mesa University, the following steps may be helpful:

1. Review the Areas of Study (p. 100) offered at Colorado Mesa University, and select disciplines that fall within an area of interest. From here, programs offered within each discipline can be reviewed.
2. See the Programs A-Z (p. 832) section or link to a program listed in the chosen discipline(s) in Areas of Study (p. 100) for details on each specific program of interest. Program pages provide detailed program requirements, suggested plans of study, and contact information.
3. Look up course descriptions (p. 850) for some of the courses listed in the program requirements. Courses that fulfill the CMU essential learning degree requirements are provided under Requirements for Baccalaureate Degrees (p. 77).
4. Finally, once programs of interest have been selected, see Undergraduate Admission Information (p. 34) or Graduate Information and Programs (p. 85) to learn more about the application process and requirements; Tuition, Fees, Residence Life and Student Accounts (p. 47) and Scholarships and Financial Aid (p. 44) to to learn more about tuition, expenses, financial aid, and housing; and Academic and Student Services, Offices and Activities (p. 55) to learn about student academic support, activities and services at Colorado Mesa University.

For those who are already students at Colorado Mesa University, this catalog is helpful for the following:

- Choose a major (follow Steps 1, 2, and 3 above.) Once you've declared a major contact the appropriate department to meet with your faculty advisor. If undeclared, contact the IRIS Advising Center (p. 55) to meet with an academic advisor and discuss options.
- Keep track of your academic progress (review the requirements for the selected program of study (p. 832) and track progress in DegreeWorks).
- Review courses, both required and elective, in Course Descriptions (p. 850).
- Review degree requirements and essential learning courses under the requirements applicable to the selected Undergraduate (p. 73) or Graduate (p. 85) degree type.

To learn more about career opportunities and programs of study available at Colorado Mesa University, you might also wish to review information provided on our Academics page.

Letter from the President

Refer to the Maverick Guide to read the President's letter along with important policies and procedures.

Mission and Values

Mission

As a Human Scale University, our mission is to provide an affordable and accessible education and form meaningful and mutually enriching partnerships that support the well-being and vibrancy of our community.

Values

To fulfill our mission and reach toward our vision, our work is grounded in seven values. When we practice these values, we are able to support the diversity of our campus, learning from and honoring the rich assortment of beliefs and backgrounds that converge on our campus that make for a vibrant culture and community.

Campus Maps

Access the Campus Maps webpage to view or download printable PDF versions of the Main Campus, CMU Tech Campus, and Montrose Campus maps.

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Administration

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Administrative Staff

All Colorado Mesa University administrative staff can be found in the Faculty and Staff Listing.

Board of Trustees

Visit the Colorado Mesa University Board of Trustees website for information, including biographies of acting trustees, meeting dates, and related documents.

Emeritus Faculty and Visiting Professors

Colorado Mesa University Recent Emeritus Faculty

(Date in parentheses indicates year of retirement. In accord with Faculty Senate action, this list is limited to faculty awarded emeritus status in the past 10 years.)

Thomas Acker, BS MA, PhD, Professor of Spanish (2022)

Monte Atkinson, AS, BFA, MM, DMA, Professor of Music (2018)

Julie Barak, BA, MA, PhD, Professor of English (2021)

Bruce Bauerle, BA, MS, DA, Professor of Biology (2016)

Susan Becker, BA, MA, PhD, Professor of Psychology (2023)

Richard Bell, BS, JD, MA, EdD, Associate Professor of Kinesiology (2025)

Clare Boulanger, BS, MA, PhD, Professor of Anthropology (2014)

Steven Bradley, BA, MA, PhD, Professor of Art (2015)

Julie Bruch, BA, MA, PhD, Professor of Language (2019)

Paula Casey, BS, MA, Instructor of Speech (2023)

Rex Cole, AS, BS, PhD, Professor of Geology (2020)

Adele Cummings, BA, MS, PhD, Professor of Sociology (2015)

Jack Delmore, BM, MM, DMA, Professor of Music (2017)

Arun Ektare, PhD, Professor of Computer Science (2014)

Karen Ford, BA, MA, PHD, Professor of Psychology (2017)

Sandy Forrest, BSN, MSN, PhD, Professor of Nursing (2017)

Philip Gustafson, BS, MS, PhD, Professor of of Mathematics (2024)

Gig Leadbetter, BA, MS, PhD, Professor of Kinesiology (2015)

Daniel Flenniken, Associate Professor of Mass Communication (2017)

Lisa Friel-Redifer, BA, MEd, EdD, Professor of Teacher Education (2024)

Tim Hatten, BA, MS, PhD, Professor of Business Administration (2025)

Myra Heinrich, BS, MA, PhD, Professor of Psychology (2014)

Calvin Hofer, BA, MME, DMA, Professor of Teacher Education (2024)

Arthur Houle, BM, MM, DMA, Professor of Music (2020)

Rick Livaccari, BS, MS, PhD, Professor of Geology (2023)

Gary Looft, Technical Instructor of Applied Technology - Transportation Services (2016)

Britt Mathwich, BA, MA, Associate Professor of Business (2024)

Stephanie Matlock, BA, MS, Instructor of Biology (2022)

Robert Mayer, BA, MS, Assistant Professor of Business (2017)

Gabriele Mayer-Hunke, BS, BA, MS, MA, Instructor of English and German (2017)

Gary McCallister, BS, MS, DA, Professor of Biological Sciences (2014)

Tamera Minnick, BS, PhD, Professor of Environmental Science and Technology (2022)

Maureen Neal, BA, MA, PhD, Professor of English (2015)

John Nizalowski, BA, MA, Instructor of English (2022)

Lori Payne, BA, MS, PhD, Professor of Computer Science (2021)

Randy Phillis, BA, MFA, PhD, Professor of English (2025)

Carolyn Quinn-Hensley, BFA, MFA, Professor of Art and Design (2019)

John Redifer, AA, BA, MA, PhD, Professor of Political Science (2018)

Kristine Reuss, BSN, MSN, PhD, Professor of Nursing (2017)

David Rogers, BA, MBA, Professor of Accounting (2012)

Eric Sandstrom, BA, MA, Assistant Professor of Mass Communications (2019)

Bette Schans, BS, MS, PhD, Professor of Radiologic Technology (2016)

Steven Schulte, BA, MA, PhD, Professor of History (2020)

Daniel Schultz-Ela, BA, MS, MS, PhD, Professor of Mathematics (2022)

Patrick Schutz, BS, MS, PhD, Professor of Business Administration (2018)

Elizabeth Sharp, BS, MEd, Professor of Kinesiology (2025)

Luis Silva-Villar, MA, MA, PhD, Professor of Spanish (2022)

Gayla Jo Slauson, BA, MBA, Associate Professor of Computer Information Systems (2017)

William Tiernan, BA, PhD, Professor of Physics (2017)

Richard Vail, BSME, MBA, MSc, PhD, Professor of Business (2023)

Mayela Vallejos-Ramirez, BA, MA, PhD, Professor of Spanish (2022)

Heather Waggoner, AA, BA, MFA, Professor of Theatre Arts (2015)

Patti Ward, AAS, BS, MEd, PhD, Professor of Radiologic Sciences (2021)

Judy Williams, BSN, MSN, Associate Professor of Nursing (2022)

William Wright, BA, MA, PhD, Professor of English (2025)

Colorado Mesa University Visiting Professors

Aspinall Professors

Carl Abbott (1985), History; BA, Swarthmore College; MA, PhD, University of Chicago

Seth Archer (2024), History; BA, College of William and Mary; MFA, University of Arizona; MA, College of William and Mary; PhD, University of California, Riverside

William Beezley (2008), History; BA, Chico State College; MA, PhD, University of Nebraska

Stephen Bennet (1995), History; BS, MS, Illinois State University-Normal; PhD, University of Illinois, Urbana-Champaign

Alan Block (1996), History, Political Science, and Public Affairs; AB, PhD, University of California-Los Angeles; MA, California State University

Peter Blodgett (2016), History; AB, Bowdoin College; MA, M. Phil, PhD, Yale University

Peter Boyle (1989), History and American Studies; MA, Glasgow University, Scotland; PhD, University of California, Los Angeles

Michael M. Brescia (2018), History; BA, West Virginia University; MA, PhD, University of Arizona

George Browder (2001), History; BS, Memphis State University; MA, PhD, University of Wisconsin at Madison

William Chaloupka (2009), Political Science; BS, University of Nebraska; MA, Arizona State University; PhD, University of Hawaii

Cornell Clayton (2014), BA, University of Utah, M.Ltt; D.Phil, Oxford University

Walker Connor (1992), Political Science; John R Reitmayer Professor of Political Science, Trinity College

Martin Cook (2019), Philosophy; BA, University of Illinois; MA, PhD, University of Chicago

Thomas Davis (2007), History; BA, Fordham University; MA, PhD, Columbia University; JD, State University of New York-Buffalo

Roger Dingman (1991), History; BA, Stanford University; MA, PhD Harvard University

Richard W. Etulain (2010), History; AB, Northwest Nazarene College; MA, PhD, University of Oregon; DHL, Northwest Nazarene University

Richard Funston (1987), Political Science; BA, MA, PhD, University of California-Los Angeles; JD, University of San Diego

Andrew Gulliford (1997), History; BA, MAT, Colorado College; PhD, Bowling Green State University

Reynold Koslowski (2020), Political Science, History, and Public Affairs; PhD, University of Pennsylvania

Gordon Martin, Jr (1998), Political Science, History, and Public Affairs; AB, Harvard College; JD, New York University

Thomas Millington (2002), Political Science; BA, Williams College; MA, PhD, Johns Hopkins School of Advanced International Study

Erika Monahan (2021), History; BA, Dartmouth College; MA, PhD, Stanford University

Douglas Monroy (2022), History; BA, MA, PhD, University of California Los Angeles

Robert Mortimer (1986), Political Science; BA, Wesleyan University; MA, PhD, Columbia University

William Parrish (2000), History, Political Science and Public Affairs; BS, Kansas State University; MA, PhD, University of Missouri

Edwin Perkins (2003), History, Political Science, and Public Affairs; BA, College of William and Mary; MBA, University of Virginia; PhD, Johns Hopkins University

F. Ross Peterson (2015), History; BA, Utah State University, PhD Washington State University

Glenda Riley (1993), History, Political Science and Public Affairs; BA, Western Reverse University; MA, Miami University; PhD, University of Ohio

Pamela Riney-Kehrberg (1999), History; BA, Colorado College; MA, PhD, University of Wisconsin

William Robbins (1990), History; BS, Western Connecticut; MA, PhD, University of Oregon

Randolph Roth (2012), History and Sociology; BA, Stanford University; PhD, Yale University

Adam Soward, (2017), History; BA, University of Puget Sound; MA, PhD, Arizona State University

Dominik Stecula (2023), Political Science; BA, University of Michigan, Dearborn; MA, McGill University; PhD, University of British Columbia

Jerome Steffen (1988), History; BS, University of Wisconsin, Madison; MA, Eastern Michigan University; PhD, University of Missouri

Zachary Smith (1994), History, Political Science and Public Affairs; BA, California State University, Fullerton; MA, PhD, University of California, Santa Barbara

Robert Westbrook (2004), History; BA, Yale University; PhD, Stanford University

John Wills, Jr. (2005), History; BA, University of Illinois; MA, PhD, Harvard University

Peter H. Wood (2013), History; BA, Harvard University; BA, University of Oxford; PhD, Harvard University

Faculty

NOTE: Date in parentheses following faculty member's name indicates the first calendar year of a full-time faculty appointment at Colorado Mesa University or CMU Tech. Only full time faculty are listed; prior temporary or part-time service is not indicated. Faculty members with a temporary appointment do not have a year listed.

A

William Aikens (2016), Instructor of Music; BM, Duquesne University; MM, University of Cincinnati; DMA, Arizona State University

Lisa Aikin-Allen (2024), Instructor of American Sign Language; BA, Gallaudet University

Oxana Allen (2025), Visiting Instructor of Machining Technology;

Shelly Almroth (2021), Instructor of Nursing; AAS, Owens Community College; BS, Regis University; MSN, Western Governors University

Brent Alumbaugh (2010), Instructor of Kinesiology; BA, Colorado Mesa University; MS, University of New Mexico

Mohammed Alyami (2023), Assistant Professor of Computer Information Systems; MBA, California Lutheran University; MS, Claremont Graduate University; PhD, Townson University

Tyler Anderson (2006), Professor of Spanish; AA, Ricks College; BA, Brigham Young University; MA, Brigham Young University; PhD, Pennsylvania State University

Scott Andrews (2017), Associate Professor of Communication Studies; BA, St. Andrews Presbyterian College; BFA, St. Andrews Presbyterian College; MA, University of Florida; PhD, Pennsylvania State University

Sherine Antoun (2019), Assistant Professor of Computer Science; BCS, University of Wollongong; MPhil, University of Wollongong; PhD, University of Wollongong

Kathi Arbogast (2024), Nursing Clinical Coordinator; BA, Colorado Mesa University

Andrew Armstrong (2023), Technical Instructor of Construction Trades;

April Arnhold (2022), Instructor of Nursing; AAS, Colorado Mesa University; BSN, Western Governors University; MS, Western Governors University

Andres Aslan (1999), Professor of Geology; BS, Brown University; MS, University of Colorado-Boulder; PhD, University of Colorado-Boulder

Wade Aubin (2024), Assistant Professor of Geosciences; BS, Humboldt State University; MS, Washington State University

Ryan Avery Follensbee (2022), Technical Instructor of Viticulture and Enology; AAS, Walla Walla Community College; BS, Cornell University

James Ayers (2007), Professor of Chemistry, Department Head for Physical and Environmental Sciences; BS, University of Texas-Austin; PhD, Stanford University

B

Nate Bachman (2021), Instructor of Kinesiology; BS, Colorado Mesa University; MS, Colorado State University

Christiane Baigent (2024), Assistant Professor of Forensic Anthropology; BA, Metropolitan State University of Denver; MSC, University College London; PhD, Southern Illinois University Carbondale

Diana Bailey (2010), Associate Professor of Nursing; AS, Mesa State College; BSN, Mesa State College; MSN, Walden University

Abdulah Bajaba (2022), Assistant Professor of Business Management; BA, Boston University; MBA, Louisiana Tech University; DBA, Louisiana Tech University

Andrew Bajorek (2022), Assistant Professor of Music; BA, Edinboro University of Pennsylvania; MM, University of Florida

Greg Baker (2019), Professor of Geology; BS, Lehigh University; MS, Lehigh University; PhD, University of Kansas

Jefferson Baker (2024), Visiting Instructor of History; BA, Colorado Mesa University; MA, Southern New Hampshire

Regina Baker (2024), Technical Instructor of Medical Office Assisting; AAS, Kaplan University

Amelia Baldwin (2023), Instructor of Teacher Education; BS, Colorado State University; MA, Colorado Mesa University; EdD, University of Northern Colorado

Valeria Balogh (2022), Instructor of Psychology; BFA, Western Carolina University; MS, Walden University; PhD, Walden University

Dena Banta Corona (2020), Instructor of Nursing; BA, Colorado Mesa University; BSN, Colorado Mesa University; MS, Walden University

Nick Bardo (2018), Associate Professor, Department Head of Teacher Education; BA, Brown University; MA, Bowling Green State University; PhD, University of South Florida

Andrea Barnard (2013), Instructor of Mathematics; BS, Brigham Young University-Idaho; MEd, University of Texas-Arlington

Ram Basnet (2013), Associate Professor of Computer Science; BS, Colorado Mesa University; MS, New Mexico Institute of Mining and Technology; PhD, New Mexico Institute of Mining and Technology

Cecilia Battauz (2022), Assistant Professor of Spanish; BA, ISPN8 Alte. Guillermo Brown (Santa Fe, Argentina); MA, West Virginia University; PhD, University of Maryland, College Park

Adam Bavier (2022), Instructor of Outdoor Recreation Industry Studies; BS, Rutgers University; MS, Montana State University

Margot Becktell (2005), Professor of Biology, Department Head of Biology; BS, Colorado Mesa University; PhD, Cornell University

Kate Belknap (2011), Instructor of English; BA, The University of the South; MA, University of Dallas

Jesse Benn (2025), Instructor of Mass Communication;

Jason Bennett (2023), Associate Clinical Professor Athletic Training, Director Athletic Training Program; BA, California State University; MA, California State University; DA, Middle Tennessee State University

Jeremy Bergen (2009), Assistant Professor of Computer Science; BS, Colorado Mesa University; MS, Georgia Institute of Technology

Kelly Krohn Bevill (2011), Associate Professor of Civil Engineering; BS, University of Colorado-Boulder; MS, Cornell University

Scott Bevill (2010), Associate Professor of Mechanical Engineering, Department Head of Computer Science and Engineering; BS, University of Denver; MS, Stanford University; PhD, Stanford University

Blake Bickham (2007), Professor of Teacher Education; BA, Texas A&M University; MA, Texas A&M University; EdD, University of Houston

Catherine Bonan-Hamada (1996), Professor of Mathematics; BS, Colorado State University; MS, Colorado State University; PhD, University of Colorado

Edward Bonan-Hamada (1996), Associate Professor of Mathematics; BA, University of Rochester; MA, University of Hawaii; PhD, University of Colorado

Philip Bottone (2023), Assistant Professor of Radiologic Sciences; AS, Holyoke Community College; BS, Northeastern University; MPH, Northeastern University

Shannon Branfield (2024), Visiting Assistant Professor of English; BA, Eastern Washington University; MA, Utah State University; PhD, University of Kentucky

Elizabeth Branscum (2016), Technical Instructor of Culinary Arts; BS, University of Central Missouri

Sharon Brodbelt (2023), Assistant Professor of Physician Assistant Studies; BS, Virginia Tech; MMS, Saint Francis University

Bonnie Butler (2011), Instructor of English; BA, Fort Lewis College; MA, Colorado State University

Joshua Butler (2004), Professor of Art; BFA, Colorado State University; MFA, Colorado State University

C

Chris Calver (2021), Technical Instructor of Manufacturing Technology; Certificate, Colorado Mountain College

Bill Campbell (2013), Technical Instructor of Welding Technology; AAS, Utah Valley University; BS, Utah Valley University

Christopher Carcia (2021), Professor of Kinesiology, Physical Therapy Program Director; BS, Arcadia University Glenside; MS, Institute of Health Professions at Massachusetts General Hospital; PhD, University of Virginia

Tara Carleo (2022), Instructor of Communication Studies; BA, University of Northern Colorado; MA, University of Northern Colorado; EdD, University of Denver

Brooke Carlson (2021), Instructor of English; BA, Bowdoin College; MA, University of Southern California; PHD, University of Southern California

Michael Carlton (2012), Assistant Technical Professor of Manufacturing Technology; AAS, Mesa Community College

Colin Carman (2013), Assistant Professor of English; BA, Hamilton College; MA, University of California-Santa Barbara; PhD, University of California-Santa Barbara

Michael Carsten (2010), Technical Instructor of Transportation Services; Certificate, Southwest Texas Junior College

Katlyn Casagrande (2024), Assistant Professor of Criminal Justice; BS, Utah State University; MS, Texas State University; PhD, Texas State University

Tim Casey (1997), Professor of Political Science; BS, Northern Arizona University; MA, University of San Francisco; PhD, Arizona State University

Karl Castleton (2014), Associate Professor of Computer Science; AAS, Colorado Mesa University; BS, Colorado Mesa University; MS, Washington State University

Shiang-Lih Chen McCain (2018), Associate Professor of Business; BBA, Providence University; MS, University of Nevada-Las Vegas; PhD, University of Nevada-Las Vegas

Cynthia Chovich (2007), Professor of Teacher Education; BA, California State University-San Marcos; MA, Grand Canyon University; Ded, Walden University

Carol Christ-Campbell (2004), Instructor of English; BA, Colorado Mesa University; MFA, Colorado State University

Rhonda Claridge (1999), Instructor of English; BA, New York University; MA, University of Colorado-Boulder

Kelly Coffin (2009), Instructor of Nursing; AS, Washburn University; BSN, Washburn University; MSN, Walden University

Chris Cohu (2020), Assistant Professor of Environmental Science; BA, Western Colorado University; PhD, Colorado State University

David Collins (2007), Professor of Physics; BS, Rhodes University; PhD, University of Texas-Austin

Melissa Connor (2012), Professor of Forensic Anthropology, Director of the Forensic Investigation Research Station; BA, University of Wisconsin; MA, University of Wisconsin; PhD, University of Nebraska-Lincoln

Patrice Connors (2019), Associate Professor of Biology; BS, Ithaca College; PhD, University of Utah

A'lanne Conrad (2019), Assistant Clinical Professor of Physician Assistant Studies; BA, Colorado Mesa University; MS, University of the Sciences

Jill Cordova (1992), Professor of Kinesiology; BA, Humboldt State University; MA, Humboldt State University; PhD, University of New Mexico

Sharaya Cowan (2024), Instructor of Sport Management; BS, Colorado Mesa University; MS, Colorado Mesa University

Linda Cummins (2022), Assistant Clinical Professor of Nursing; AAS, Southwestern Illinois College; BS, Ohio University; BS, Ohio University; MA, Webster University

Evan Curtis (2019), Associate Professor of Art; BFA, Purchase College; MFA, Savannah College

Tracy Cyr (2017), Instructor of Biology; BS, University of California-Riverside; MS, Washington State University; PhD, University of Missouri-Columbia

D

Tim D'Andrea (2008), Professor of Chemistry; BS, Ursinus College; PhD, University of Colorado

Laurena Davis (2022), Instructor of English; BA, Mesa State College; MA, Northern Arizona University; PhD, Texas Tech University

Tevfik Demirciftci (2022), Assistant Professor of Hospitality Management; BS, Bilkent University; MS, University of Delaware; PhD, University of Nevada Las Vegas and Istanbul University

Sean DeVeau (2022), Instructor of Nursing; AS, Laramie County Community College; BS, Western Governors University; MS, Western Governors University; JD, University of Wyoming

Kathleen Diehl (2021), Associate Professor of Dance; BA, State University of New York-Plattsburgh; MSW, Case Western Reserve University; MFA, The College at Brockport

Danielle Dominguez (2022), Instructor of Nursing; AS, College of Siskiyous; BS, Denver College of Nursing; MS, Regis University

Erin Donovan (2018), Associate Professor of Nursing; ASN, College of Saint Mary-Omaha; BSN, College of Saint Mary-Omaha; MSN, College of Saint Mary-Omaha; EdD, College of Saint Mary-Omaha

Katie Dreiling (2011), Professor of Criminal Justice; BA, St. Cloud State University; MS, St. Cloud State University; PhD, South Dakota State University

Lisa Driskell (2010), Professor of Mathematics, Department Head of Mathematics and Statistics; BS, Central Michigan University; PhD, Purdue University

Casey Dry (2017), Technical Instructor of Manufacturing Technology; AAS, Mesa State College

Lynn Duncan (2011), Associate Professor of Nursing and Clinical Education Center Coordinator; BSN, South Dakota State University; MSN, Colorado Mesa University

Megan Dunegan (2019), Surgical Technology Program Director/Instructor; AAS, Austin Community College

E

Ashley Ecklund (2025), Instructor of Composition; BA, California State University; MA, California State University; MA, University of London; PhD, University of Oregon

Jude Edeigba (2023), Assistant Professor of Accounting; MBA, University Selangor; PhD, Lincoln University

Jacob Eikenberry (2023), Assistant Professor of Social Work; BA, University of Illinois-Springfield; MSW, Washington University-Saint Louis

Rachel Eisfelder (2024), Assistant Professor in Occupational Therapy; BS, Culver-Stockton College; MOT, Saint Ambros University

Eric Elliott (2015), Associate Professor of Art, Department Head of Art and Design; AA, Mesa Community College; BFA, University of California-Berkley; MFA, University of Washington-Seattle

Kristy Emerson (2019), Instructor of Nursing; BS, Colorado Mesa University; BSN, Colorado Mesa University; MPH, University of Northern Colorado

Jerred Endsley (2024), Interim Assistant Professor of Social Work/ Director; BA, Purdue University; MSW, Boston College

Megan Englund (2013), Technical Instructor of Marketing Education; BBA, Colorado Mesa University; MBA, Colorado Mesa University

F

Cathleen Farrell (2019), Instructor of Mathematics; BS, Florida Atlantic University; MS, Florida Atlantic University; MS, University of Florida

Cathy Feller (2011), Associate Professor of Nursing; BA, Brandeis University; BSN, University of Maine; MSN, Walden University

Cassandra Fenton (2016), Associate Professor of Geology; BA, University of Rochester; MS, University of Salzburg; MS, University of Utah; PhD, University of Utah

Lori Ferguson (2022), Assistant Professor of Nursing; AAS, Trinity Valley Community College; BS, Black Hills State University; BSN, University of Texas; MSN, University of Texas

Carolyn Ferreira-Lillo (2009), Assistant Technical Professor Mechatronics; AAS, Queensborough Community College; BSEE, City College of New York; MS, State University of New York at Stony Brook

Seth Ferris (2023), Assistant Professor of Graphic Design; MFA, University of California-San Diego

Elizabeth Fillion (2025), Assistant Professor of Biology; BA, Northwestern University; BM, Northwestern University; MPIL, New York University; PhD, New York University

Marc Fischer (2011), Instructor of Mathematics; BS, Colorado Mesa University; MS, Ruhr Universitat Bochum

Sean Flanigan (2006), Professor of Music; BS, University of Illinois-Urbana Champaign; MM, University of Illinois-Urbana Champaign; DMA, University of North Texas

Jennifer Fortuna (2022), Associate Professor of Occupational Therapy; PhD, Western Michigan University

Craig Fossett (2004), Assistant Professor of Accounting; BA, University of Missouri-Kansas City; MBA, Western State College

Kyle Francis (2024), Director of Clinical Education for Respiratory Therapy;

Jeremy Franklin (2007), Instructor of Music Theatre; BM, Ouachita Baptist University

Bailey Fraser (2024), Assistant Professor/Assistant Clinical Professor of Mental Health Nursing; BSN, Colorado Mesa University; MSN, University of Colorado Springs

Brian Fraser (2024), Visiting Instructor of Finance; BA, Colorado Mesa University; MA, University of Denver

Keith Fritz (1997), Professor of Kinesiology; BS, Oregon State University; MS, University of New Mexico; PhD, University of New Mexico

G

Sean Gallagher (2022), Assistant Professor of History; BA, California State University - East Bay; MA, San Francisco State University; PhD, University of California, Davis

Fidel Garcia (2022), Technical Instructor of Paramedic; AGS, Colorado Northwestern Community College

Rosa Gardner (2024), Assistant Professor for the Master of Physician Assistant Study Program; BA, Whitman College; MPAS, Rocky Mountain College

Suzie Garner (1995), Professor of Art; BFA, Stephen F. Austin State University; MA, Stephen F. Austin State University; MFA, West Texas A&M University

Alicia Geary (2019), Instructor of Nursing; BSN, Colorado Mesa University

Barbara Geiger (2000), Instructor of English; BA, Texas Tech University; MA, Texas Tech University; PhD, Texas Tech University

TJ Gerlach (2005), Professor of English; BA, University of Utah; MFA, University of Utah; PhD, University of Denver

Brian Gildea (2024), Assistant Professor of Criminal Justice; BA, Kings College; MA, New Mexico State University

Ann Gillies (2014), Associate Professor of Teacher Education; BS, Ohio State University; MA, Ohio State University; PhD, University of South Florida

Jennifer Glaws (2024), Assistant Professor of Dance;

Frank Godel (2024), Technical Instructor of Machining Technology;

Justin Gollob (2008), Professor of Political Science; BS, Idaho State University; MA, Temple University; PhD, Temple University

Renee Good (2018), Instructor of Biology; BS, Washington State University; PhD, University of Colorado

Nicole Gouin (2023), Assistant Professor of Nursing; ASN, Pacific Union College; BSN, University of Phoenix; MSN, University of Wisconsin-Oshkosh

Steve Gould (2023), Technical Instructor of Baking and Pastry; ACS, Le Cordon Bleu College of Culinary Arts

Lucy Graham (2016), Associate Professor of Nursing, Department Head of Health Sciences; BSN, University of Kansas; BA, University of Kansas; MPH, University of Northern Colorado; PhD, University of Colorado

Sarah Gray (2023), Assistant Professor in Occupational Therapy; BS, Colorado State University; MS, Colorado State University; OTD, University of Utah

Michalene Grebski (2020), Instructor of Psychology; BS, Pennsylvania State University; MBA, Marywood University; MA, Rosemont College; PhD, Silesian University of Technology

Brad Green (2024), Technical Instructor of Medical Office Assisting;

Nicole Grider (2016), Instructor of Speech; BS, University of Central Missouri; MA, University of Central Missouri

Robbi Grimm (2022), Technical Instructor of Mechatronics; BA, Freie Universitat, Germany

Olga Grisak (2013), Associate Professor of Radiologic Sciences, Program Coordinator; AAS, Colorado Mesa University; BS, State University Lvivska Politekhnika; MS, State University Lvivska Politekhnika

Damion Gustafson (2016), Assistant Technical Professor of Welding Technology; AAS, Colorado Mesa University

Jeffrey Gustafson (2023), Instructor of Art and Design, Film; BA, Brigham Young University; MFA, Texas A&M University

H

Kurt Haas (1999), Professor of English; BA, Truman State University; MA, Truman State University; PhD, University of Nebraska-Lincoln

Kristen Hague (2001), Professor of English; BA, Providence College; MA, University of New Mexico; PhD, University of New Mexico

Mitchel Hagy (2025), Assistant Professor of Business - Entrepreneurship; BAAS, University of North Texas; MBA, University of Phoenix

Eli Hall (2011), Associate Professor of Art, Graphic Design; BFA, Missouri State University; MA, Lindenwood University; MFA, Colorado State University

Kathleen Hall (2015), Associate Professor Nursing; BS, University of Maryland; BSN, University of Alabama-Huntsville; MS, University of Arizona; PhD, University of Arizona

Amy Hammerich (2022), Associate Professor of Physical Therapy; BS, Miami University; MSPT, Regis University; DPT, Regis University; PhD, University of Colorado

Paul Hampton (2012), Professor of Biology; BS, Eastern Illinois University; MS, University of Texas-Tyler; PhD, University of Louisiana-Lafayette

Eriek Hansen (2013), Professor of Biology; BS, Utah State University; MS, Utah State University; PhD, University of Wyoming

Melanie Hansen (2024), Instructor of Biology; BS, Utah State University; MS, University of Nevada; PhD, University of Wyoming

Shelly Hansen (2021), Instructor of Mathematics; BA, Azusa Pacific University; MA, Colorado Mesa University

Austin Hanson (2024), Assistant Professor of Construction Management; BS, Elon University; M.Arch, University of Colorado

Michele Hanson (2002), Instructor of English; BA, University of California-Santa Barbara; MA, University of New Hampshire; MLS, University of Arizona

Andrew Harbert (2024), Instructor of CISB;

Jeremy Hawkins (2013), Professor of Kinesiology, Department Head of Kinesiology; BS, Brigham Young University; MS, Oregon State University; PhD, Brigham Young University

Lalita Heinemann (2024), Instructor of Developmental Math;

Susan Hemphill (2024), Visiting Instructor of Mathematics; BS, University of North Dakota; MEd, University of Houston

Megan Henley (2016), Associate Professor of Sociology; BA, University of California-Irvine; MA, University of Arizona; PhD, University of Arizona

Adrian Herrera Escobar (2021), Assistant Professor of Music; BA, Conservatorio Antonio Maria Valencia, Instituto dep; MA, City University of New York - Queens College; DMA, University of Illinois-Urbana Champaign

Jessica Herrick (1995), Professor of Psychology; BA, University of Wyoming; MS, University of Wyoming; PhD, University of Wyoming

Cassidy Herringer (2021), Assistant Professor, Director of Physical Therapy Clinical Education; BS, Whittier College; DPT, Temple University

Zachary Hestand (2024), Instructor of English; BA, University of Nevada; PhD, Point Park University

Kristin Heumann (2011), Professor of Kinesiology; BA, Northwestern College; MS, Arizona State University; PhD, Arizona State University

Jonathan Hinkle (2012), Professor of Music, Director of Bands; BME, Florida State University; MME, Florida State University; PhD, Florida State University

Paul Hoerr (2023), Technical Instructor of Diesel Transportation Services; Certificate, Technical College of the Rockies

Calvin Hofer (1998), Professor of Music; BA, South Dakota State University; MME, University of Wisconsin; DMA, University of North Texas

Sundial Hoffman (2022), Technical Instructor of Digital Filmmaking; AA, Collins College; BA, Colorado Mesa University

Jill Holaday (2022), Instructor of Art History; BA, University of Evansville; MA, University of Illinois at Urbana-Champaign; PhD, University of Iowa

Pamela Holder (2014), Technical Instructor, Allied Health/Paramedic Program Director; BS, Colorado Christian University

Autumne Hollingsworth (2023), Assistant Professor of Physical Therapy; BS, University of Central Arkansas; DPT, University of Central Arkansas

Shazzad Hossain Sikdar (2024), Assistant Professor of Management; BBA, University of Dhaka; MBA, Eastern Illinois University; MS, Washington State University; PhD, Washington State University

Brian Hosterman (2014), Associate Professor of Physics; BS, Denison University; MS, University of Nevada-Las Vegas; PhD, University of Nevada-Las Vegas

Christopher Howell (2025), Visiting Instructor of History; BA, University of Texas; MA, University of Texas; PhD, University of the Cumberlands

Jarom Hullinger (2023), Technical Instructor of Technical Linework;

Gary Hypes (2021), Instructor of Accounting; BS, West Liberty State College; MBA, University of Phoenix; JD, West Virginia University

J

Erika Jackson (2010), Professor of History, Department Head for Social and Behavioral Sciences; BA, Michigan State University; MA, Loyola University; PhD, Michigan State University

Eliot Jennings (2013), Associate Professor of Political Science; BS, University of North Texas; MPA, University of North Texas; PhD, University of North Texas

Dirk Johnson (2022), Director of Vocal Ensembles; BM, Brigham Young University; MM, Brigham Young University; DMA, University of Cincinnati

Rhonda Johnson (2019), Technical Instructor of Applied Business; BS, California State Polytechnic University; MBA, Colorado Mesa University

Sarah Johnson (2023), Assistant Professor of Social Work; BSJ, Northwestern University; MSW, Colorado State University

Verner Johnson (1989), Professor of Geology; BA, Southern Illinois University; MS, Southern Illinois University; PhD, University of Tennessee

Jessica Jolley (2024), Visiting Instructor of Psychology; BA, Colorado Mesa University; MS, University of North Carolina

Dylan Jones (2022), Assistant Professor of Biochemistry; BA, Concordia College; PhD, University of Nevada-Reno

Jake Jones (2011), Professor of Psychology; BS, Bluefield College; MS, Radford University; PhD, Indiana State University

Georgann Jouflas (2006), Instructor of Business; BA, University of Colorado; MBA, George Washington University

Julie Jung (2024), Assistant Professor of Hospitality Management; BA, Semyung University; MA, Sejong University; PhD, University of Tennessee

Jeremy Jurgens (2013), Instructor of English; BS, Utah Valley University; MA, Oregon State University

K

Darin Kamstra (2004), Professor of Music, Department Head of Music; BM, Eastern Washington University; MM, University of Northern Colorado; DMA, University of Illinois-Urbana-Champaign

Alaa Kassir (2008), Associate Technical Professor of Developmental Education-Math; BS, University of Wisconsin-Madison; MS, University of Wisconsin-Madison

Happy Katzer (2019), Assistant Professor of Radiologic Sciences; AAS, Colorado Mesa University; BS, Southern New Hampshire University

Geoff Kelley (2025), Instructor of Applied Anthropology and Geography; BA, University of Southern California - Santa Barbara; MA, Humboldt State University; PhD, University of Georgia

Kevin Kelley (2022), Assistant Professor of Psychology; BA, Saint Louis University; MS, Saint Louis University; PhD, Saint Louis University

Deborah Kennard (2005), Professor of Environmental Science and Technology; BA, Trinity University; MS, University of Florida; PhD, University of Florida

Suzanne Kenney (2006), Instructor of Chemistry; BS, Clarkson University; MS, Clarkson University

Scott Kessler (2010), Associate Professor of Mechanical Engineering; BS, University of Missouri; MS, University of Missouri; PhD, University of Missouri

Sharon Kettle-Kemp (2022), Technical Instructor of Veterinary Technology; AAS, Bel-Rea Institute of Animal Technology

Faten Khoury (2025), Program Director of Dental Hygiene; MA, Concordia University

Clay King (2024), Associate Professor of Statistics; BA, Austin College; MA, Baylor University; PhD, Baylor University

Tiffany Kinney (2017), Associate Professor of English, Department Head of Languages, Literature, and Mass Communication; BA, Westminster College; MA, University of Oregon; PhD, University of Utah

Margaret Knapp (2023), Assistant Professor of Theatre; BA, University of Missouri-Kansas City; MFA, University of Missouri-Kansas City; MA, University of Wisconsin-Madison

Karli Knudsen (2024), Visiting Instructor of Kinesiology; BS, University of Montana

Pamela Krch (2010), Instructor of History; BA, Colorado Mesa University; MA, New Mexico State University; PhD, University of Texas-El Paso

Brian Krinke (2017), Instructor of Music; BM, The Curtis Institute of Music; MM, The Julliard School

Frances Krumlauf (2024), Instructor of Biology; BA, North Central College; MS, Benedictine University

Zach Kubin (2022), Instructor of Chemistry; BA, Gonzaga University; MS, University of Saint Joseph

George Kurian (2025), Assistant Professor of Operations Management; BS, Mahatma Gandhi University; MBA, University of Texas; PhD, University of Texas

L

Keara LaBonde (2020), Technical Instructor of Construction Technology; BA, Brigham Young University-Idaho

Barry Laga (1997), Professor of English; BA, Brigham Young University; MA, Brigham Young University; PhD, Purdue University

Mo LaMee (2012), Associate Professor of Theatre Arts, Department Head of Theatre; BA, Loretto Heights College; MFA, National Theatre Conservatory

Sarah Lanci (2015), Associate Professor of Mechanical Engineering; BS, Michigan State University; MS, Colorado School of Mines

Erin Layman (2024), Assistant Professor/Clinical Professor for the Bechtel Physician; BS, Colorado Mesa University; MS, Rocky Vista University

Grace Lee (2023), Visiting Instructor of Communication Studies; BA, Handlong Global University; MA, Bellamine University; PhD, Purdue University

Yen-Sheng Lee (2018), Associate Professor of Business-Finance; MS, Yuan-Ze University; MBA, University of Missouri; MS, University of New Orleans; PhD, University of New Orleans

Dara Legacy (2023), Respiratory Therapy Program Director/Instructor; BA, University of Phoenix; MS, Grand Canyon University

Mike Legate (2014), Instructor of Theatre Arts; BFA, University of Montana; MFA, University of Nebraska-Lincoln

Jennifer Lehman (2025), Assistant Professor of Finance; BS, Texas Christian University; MPA, University of North Caroline; JD, University of North Caroline; PhD, Texas Tech University

Alvaro Leiva (2024), Instructor of Spanish; BA, Florida International University; MA, University of Florida; PhD, Florida International University

Sofia Leon (2021), Instructor of Spanish; BA, Colorado Mesa University

Ruth Lewis (2025), Assistant Professor of Nursing; BSN, University of Wyoming; MSN, University of Wyoming

Tyler Liff (2011), Instructor of Business; AAS, Colorado Mesa University; BS, Colorado State University; MS, Colorado State University

Lance Lomax (2025), Instructor of Composition; BA, West Texas A&M; MA, Texas Tech University; PhD, Texas Tech University

Corey Lovern (2024), Technical Instructor Fire Science;

Kindra Loyd (2015), Instructor of Nursing; BSN, Colorado Mesa University

Audrey Lumley-Sapanski (2023), Assistant Professor of Geography; BA, Williams College; MS, Pace University; PhD, The Pennsylvania State University

M

Lisa Mace (2023), Instructor of Biology; BA, Regis University; MS, University of Colorado; PhD, University of Colorado-Boulder

Warren MacEvoy (1996), Professor of Computer Science; BS, Colorado Mesa University; MS, University of Arizona; PhD, University of Arizona

Mike Mahoney (2016), Technical Instructor of Technology Integration; BA, California State University-Northridge

James Mangan (2024), Assistant Professor of Physics; BA, Grinnell College; PhD, California Institute of Technology

Riley Mangan (2024), Assistant Professor/Clinical Professor for Master of Science in Occupational Therapy; BA, Grinnell College; MA, University of Southern California; PhD, University of Southern California

Nikki Mantyla (2024), Visiting Instructor of English; BA, Brigham Young University; MA, Brigham Young University

Bridget Marshall (2012), Associate Professor of Nursing; BS, University of Colorado; MS, University of Colorado; DNP, University of Utah

Danielle Martin (2018), Instructor of Mass Communication; BA, Colorado Mesa University; MS, Montana State University-Billings

Giovanna Martinez (2024), Technical Instructor Welding Technology; BBA, Colorado Mesa University

Britt Mathwich (2024), Associate Professor of Business, Hospitality Management; BA, University of New Mexico; MA, Eastern New Mexico University

Tracy Matthews (2011), Instructor, Program Director Medical Lab Technology; BS, University of Arkansas for Medical Sciences; MS, University of North Dakota

Mel Mattner (2022), Assistant Professor of Occupational Therapy; BA, Spring Arbor University; MS, Western Michigan University

Nicole Mattocks (2023), Assistant Professor of Social Work; BSW, University of North Carolina Wilmington; MSW, University of Maryland Baltimore; PhD, University of Maryland Baltimore

Miriah McCants (2022), Instructor of Nursing; BS, Colorado Mesa University

Kathryn McClain (2022), Instructor of English; BFA, Truman State University; MA, Truman State University; PhD, University of Kentucky

Jennifer McClendon (2022), Instructor of Nursing; BSN, University of Texas Arlington; MSN, Texas Woman's University; DNP, Texas Christian University

Kristen McGee (2023), Instructor of Business; BA, Colorado State University; MEd, Colorado State University

Christopher McKim (2013), Assistant Professor of Music; BM, Wichita State University; MM, Arizona State University; DMA, University of Colorado-Boulder

Kyle McQuade (2007), Professor of Biology; BS, Millikin University; PhD, University of Wisconsin-Madison

Carrie McVean (1996), Professor of Biology; BS, Colorado State University; DVM, Colorado State University

Michelle Mellenthin (2019), Associate Professor of Electrical & Computer Engineering; BS, Milwaukee School of Engineering; PhD, Colorado State University

Stephen Merino (2016), Associate Professor of Sociology; BS, Brigham Young University; MA, Pennsylvania State University; MS, University of Michigan; PhD, Pennsylvania State University

Josh Meuwly (2014), Technical Instructor of Digital Design; BA, Art Institute of Colorado

Chad Middleton (2006), Professor of Physics; BS, Eastern Illinois University; PhD, University of Tennessee- Knoxville

Greg Mikolai (2011), Instructor of Mass Communication; BA, University of Saint Thomas

Eric Miles (2015), Associate Professor of Mathematics; BS, Colorado Mesa University; MS, Colorado State University; PhD, Colorado State University

Dale Miller (2025), Program Coordinator of Medical Diagnostic Sonography; BS, University of Mary

David Miller (2014), Technical Instructor of Developmental Education-Math; BS, Colorado Mesa University; MAEd, Colorado Mesa University

Les Miller (1998), Associate Professor of Philosophy; BA, Colorado Mesa University; MA, Claremont Graduate University; PhD, Claremont Graduate University

Troy Miller (2013), Assistant Professor of Engineering, Program Director of Construction Management; BS, Brigham Young University; MS, Colorado State University

Daniel Millward (2018), Associate Clinical Professor, Program Director Physician Assistant Studies Program; BS, Brigham Young University; MMS, Salus University

Holly Mitchell (2017), Instructor of Mathematics; AA, North Central Texas College; BS, Texas Women's University; MS, Texas Women's University

Justin Montemarano (2022), Instructor of Biology; BS, Nazareth College; PhD, Kent State University

Brad Montgomery-Anderson (2018), Professor of English; BA, University of Colorado-Boulder; MA, University of Illinois at Chicago; MA, University of Kansas-Lawrence; PhD, University of Kansas-Lawrence

Caitlin Moore (2021), Instructor of Music-Voice; BM, Lee University; BME, Lee University; MM, McGill University; DA, University of Northern Colorado

Dania Morales (2025), Assistant Professor of Mathematics; BS, Western Oregon University; MS, Western Washington University; PhD, University of Kansas

Joanelle Morales (2022), Instructor or Teacher Education; BA, University of Florida; Med, University of Florida; PhD, University of South Florida

Anneke Moresco (2021), Technical Instructor, Veterinary Technology Program Director; MS, Rijkuniversiet Utrecht, The Netherlands; DVM, Colorado State University; PhD, University of California-Dafis

Bridge Morgan (1995), Professor of Business; BBA, Chadron State University; MBA, Chadron State University; PhD, University of Wyoming

Allison Morris (2011), Instructor of English; BA, Texas A&M University; MA, Texas A&M University

Laura Munoz (2022), Assistant Professor of Spanish; BA, University of California, Riverside; MA, University of California, Los Angeles; PhD, University of California, Los Angeles

N

Andrew Nance (2025), Instructor of Composition; BA, University of Montana; MFA, University of Iowa; PhD, University of Georgia

Amy Niu (2022), Instructor of Psychology; BA, Changchun University of Science and Technology; MS, University of Wisconsin, Madison; PhD, University of Wisconsin

Christine Noel (2017), Associate Professor of Accounting; BS, Metropolitan State University of Denver; MS, University of Colorado-Denver; PhD, Trident University International

Jodi Noga (2017), Associate Professor of Nursing; BSN, South Dakota State University; MSN, Regis University

O

Jack O'Neill (2024), Visiting Instructor of Chemistry; BS, University of Northern Colorado; MS, University of Northern Colorado

Douglas O'Roark (1994), Professor of History; BA, Ohio State University; MA, Ohio State University; PhD, Ohio State University

Holly Oberle (2021), Assistant Professor of Political Science; BA, Knox College; MA, Jacobs University and Universitat Bremen; PhD, Frie Universitat

KyoungHwa Oh (2013), Associate Professor of Art; BFA, Washburn University; MFA, Southern Illinois University-Carbondale

Marcos Ortiz (2018), Instructor of Mathematics; BA, University of North Carolina-Wilmington; BS, University of Buffalo; MS, University of Iowa; PhD, University of Iowa

Richard Ott (2006), Professor of Statistics; BS, St. Mary's University; MS, University of Missouri-Rolla; PhD, Rice University

Suzanne Owens-Ott (2006), Professor of Accounting, Acting Department Head of Business; BS, Norfolk State University; MBA, University of Missouri-Kansas City; MSEd, Emporia State University; DBA, California Southern University

Darren Oxford (2010), Technical Instructor of Medical Preparation; AA, Colby Community College; BA, Colorado Mesa University

Zeynep Ozsoy Bean (2010), Associate Professor of Biology; BS, Bogazici University-Turkey; PhD, University of North Carolina-Chapel Hill

P

Erik Packard (1995), Associate Professor of Mathematics; BS, Texas Tech University; MS, Texas Tech University; PhD, Texas Tech University

Brian Parry (2008), Professor of Psychology; BA, University of Utah; MS, Brigham Young University; PhD, Brigham Young University

Vincent Patarino (2003), Associate Professor of History; BA, University of Colorado-Boulder; BS, University of Colorado-Boulder; MA, University of Colorado-Boulder; PhD, University of Colorado-Boulder

Loren Paulson (2023), Wildland Fire Management Program Director; BS, Biology

Jason Pegis (2022), Instructor of Music; BM, Williamette University; MM, McGill University; DMA, University of California Los Angeles

Matthew Peiffer (2022), Technical Instructor of HVAC;

Christopher Penick (2016), Associate Professor of Mechanical Engineering; BS, Wright State University; MS, University of Dayton

Dante Penington (2022), Assistant Professor of Criminal Justice; BA, University of California Santa Barbara; MSW, University of Denver

James Perez (2015), Associate Professor of Mass Communication; BA, California State University-Long Beach; PhD, University of California-San Diego

Brian Perna (2023), Instructor of Communication Studies; BS, Minnesota State University; MA, New Mexico State University; PhD, University of Southern Mississippi

Nathan Perry (2010), Professor of Economics; BA, Westminster College; PhD, University of Utah

Michael Philipp (2016), Instructor of Accounting; MAcc, University of Central Arkansas; MBA, University of Kassel, Germany

Mike Pierce (2021), Instructor of Mathematics; BS, California State University-Chico; MS, University of California-Riverside

Christopher Poff (2024), Technical Instructor Machining Technology;

Justin Pomeranz (2021), Instructor of Environmental Science and Technology; BS, Colorado State University; MS, Colorado State University; PhD, University of Canterbury, New Zealand

Alli Powell (2018), Professor of Kinesiology; BS, Colorado Mesa University; DAT, University of Idaho-Moscow

Athena Praggastis (2021), Instructor of Biology/Lab; BA, University of Colorado-Boulder; MS, University of Utah

Q

Joseph Quesenberry (2005), Technical Instructor of Applied Math; BS, Colorado Mesa University

R

Megan Radloff (2019), Instructor of Nursing; BS, Valparaiso University; MSN, Valparaiso University

Jennifer Radomski (2021), Instructor of Nursing; BS, Texas A&M University-College Station; BSN, University of Mary Hardin-Baylor; MSN, University of Texas-Arlington

Thomas Raffin (2025), Assistant Professor of Sports Management; BS, Indiana University; MS, Florida State University; PhD, Florida State University

John Reece (2006), Professor of Criminal Justice; BA, Colorado Mesa University; MPA, University of Colorado-Denver; PhD, Northcentral University

Patty Reed (2024), Visiting Instructor of Kinesiology; BA, Colorado Mesa University

Benjamin Reigel (2017), Associate Professor of Theatre Arts; BA, University of Minnesota; MFA, University of Delaware

Nicholas Reimer (2020), Technical Instructor of Electric Lineworker; Certificate, Colorado Mesa University

Markus Reitenbach (2006), Professor of Mathematics; MS, University of Ulm; PhD, Syracuse University

Ariel Rendt Padron (2023), Lecturer of Social Work; BA, University of California; MSW, University of Denver

Dongjun Rew (2021), Assistant Professor of Marketing; BBA, Dankook University, South Korea; BS, Washington State University; MBA, Dankook University, South Korea; MS, Washington State University; PhD, University of Texas-Rio Grande Valley

Michael Rhoads (2023), Assistant Professor of Psychology; BS, Newman University; MA, University of Northern Colorado; PhD, University of Northern Colorado

Joe Richards (1995), Professor of Chemistry; BA, University of San Diego; PhD, University of North Carolina

Eric Riddle (2023), Instructor of Composition; BA, Weber State University; MA, Weber State University; PhD, Oklahoma State University

Megan Riddle (2024), Visiting Instructor of English; BA, Brigham Young University; MA, Queen Mary University

Ona Ridgway (2024), Instructor of Nursing; BS, Colorado State University; MSN, University of Colorado; DNP, Grand Canyon University

Kerry Riley (2018), Instructor of Geology; BA, University of Colorado-Boulder; MS, Boise State University; PhD, Utah State University

Jason Roberson (2016), Assistant Technical Professor of Transportation Services; AAS, Colorado Mesa University; BS, Colorado Mesa University

Kimberly Roschel (2025), Program Coordinator of Medical Diagnostic Sonography; BS, Gwynedd Mercy College; MBA, Capella University

Adam Rosenbaum (2011), Professor of History; BA, Virginia Wesleyan College; MA, Old Dominion University; PhD, Emory University

Daniel Rosenberg (2025), Assistant Professor of English; BA, Tufts University; MFA, University of Georgia; PhD, University of Georgia

Brady Russell (2018), Assistant Professor of Nursing; BSN, University of Wyoming; MSN, University of Phoenix

Molly Ryan (2013), Instructor of Mathematics; BS, University of Northern Colorado; MA, Adams State University

S

Troy Salazar (2019), Technical Instructor of Paramedic; AAS, Pueblo Community College; BS, Colorado Christian University

Christi Sanders Via (2018), Associate Professor of Human Resources; BS, Tarleton State University; MS, Tarleton State University; PhD, Walden University

Kristin Santos (2017), Associate Professor of Criminal Justice; BS, Lake Superior State University; MS, University of Cincinnati; PhD, University of Akron

Jarrod Schiffbauer (2017), Visiting Assistant Professor of Physics; BS, Ohio University; MS, Ohio University; PhD, West Virginia University

Araan Schmidt (2012), Associate Professor of Art; BFA, Kansas City Art Institute; MFA, University of Minnesota

Lisa Schmidt (2022), Instructor of Surgical Technology;

Robert Schork (2024), Instructor of Criminal Justice; MS, New Jersey City University

Stacie Schreiner (2018), Associate Professor of Nursing; BSN, Colorado Mesa University; MSN, Colorado Mesa University; DNP, Colorado Mesa University

Jesse Scott (2024), Instructor of Psychology; BA, Colorado Mesa University; MA, Adams State University

John Seebach (2014), Associate Professor of Archaeology; BA, University of Texas-El Paso; MA, Southern Methodist University; PhD, Southern Methodist University

Morgan Sellers (2024), Assistant Professor of Mathematics Education; BS, North Carolina State University; MS, North Carolina State University; PhD, Arizona State University

Megan Sherbenou (2018), Associate Professor of Biology; BA, University of Colorado-Boulder; MA, University of Colorado-Denver; PhD, University of Colorado-Denver

Siyu Shi (2024), Assistant Professor of Business Data Analytics; BS, Tongji University; MS, University of Connecticut; PhD, University of London

Tess Shideler (2024), Assistant Professor of Biology; BS, Florida State University; PhD, University of Colorado

Andy Shiekh (2010), Instructor of Physics; BS, Imperial College, London University; PhD, Imperial College, London University

Vail Shoultz-McCole (2018), Technical Instructor of Early Childhood Education; BA, Colorado Mesa University; MA, University of Colorado-Denver; MA, Concordia University

Sarah Shrader (2019), Instructor, Acting Director of Outdoor Recreation Industry Studies; BS, Indiana University; MA, Northern Arizona University

Tim Sinak (2023), Instructor of Kinesiology; BS, University of Missouri; MS, University of Missouri

Todd Smith (2024), Assistant Professor for Master of PA Program;

Wayne Smith (1998), Associate Technical Professor of Culinary Arts; AAS, Colorado Mesa University; BAS, Colorado Mesa University

Johnny Snyder (2005), Professor of Computer Information Systems; BA, Fort Lewis College; MA, University of New Mexico; MS, Nova Southeastern University; PhD, University of New Mexico

Patrick Snyder (2017), Instructor of Mathematics; BS, Colorado Mesa University; MS, Western Illinois University

Steven Soychak (2015), Instructor of Business, Landman Energy Management Program Director; BS, University of Oklahoma

Amanda Stahlke (2024), Assistant Professor of Biology, Cell, and Molecular; BS, Colorado Mesa University; PhD, University of Iowa

Karrie Stanfill (2020), Technical Instructor of Medical Office Assistant; AAS, Denver Technical College

Mary Jo Stanley (2022), Professor of Health Sciences; BS, Son Jose State University; MS, Son Jose State University; PhD, University of Northern Colorado

Matthew Stansbury (2014), Associate Professor of Biology; BS, University of Nebraska-Omaha; PhD, Indiana University-Bloomington

Mickey Stellavato (2024), Instructor of English and Mass Communication; BA, University of Oregon; MA, University of Oregon; PhD, University of Oregon

Stephanie Stelljes (2023), Technical Instructor of Early Childhood Education; BS, University of Arizona; MEd, Concordia University

Katherine Stepanek (2023), Assistant Professor of Scenic and Lighting Design; BFA, Webster University

Andrew Stephens (2018), Instructor of Mathematics; BBA, Colorado Mesa University; PGDE, University of Hong Kong; BS, University of Oregon; MS, University of Oregon

Stephen Stern (2011), Professor of Biology; BS, University of North Carolina-Asheville; PhD, University of Utah

Genell Stites (2008), Associate Professor of Nursing; BSN, University of Northern Colorado; MSN, Regis University

Kyle Stone (2013), Professor of Business; BS, Central Missouri State University; MEd, Colorado State University; PhD, Colorado State University

Grace Sullivan (2024), Assistant Professor of Biology; BS, Buena Vista University; MA, University of Nebraska Lincoln; PhD, University of Nebraska Lincoln

Michelle Sunkel (2020), Associate Professor of Social Work; BS, Lincoln University; MSW, San Diego State University; DSW, Capella University

Tom Sylvester (2017), Technical Instructor of Land Surveying;

T

Patrick Teal (2024), Visiting Technical Instructor of Construction Electrical; AAS, Colorado Mesa University

Javier Tellez Rodriguez (2021), Assistant Professor of Geosciences; BS, Universidad Nacional de Columbia; MS, University of Oklahoma; PhD, University of Oklahoma

Cindy Thomas (2022), Technical Instructor of Nurse Aide; AAS, University of Phoenix; LPN, Southeast Community College

Jeremy Tost (2018), Associate Professor of Psychology; BA, Indiana University of Pennsylvania; MA, New Mexico State University; PhD, New Mexico State University

Tracey Tyler (2025), Instructor of Business and Business Law; BA, University of New Mexico; LLM, University of Denver; MS, The American College; JD, Northeastern University

U

Austin Upchurch (2024), Technical Instructor of Welding; AAS, Colorado Mesa University

Karen Urban (2011), Instructor of Nursing; BSN, University of Pittsburgh; MSN, University of Pittsburgh; DNP, Colorado Mesa University

V

Jill Van Brussel (2013), Associate Professor of Theatre - Costume Design; BS, University of California-Santa Barbara; MA, Bowling Green State University; MFA, Purdue University

Rodger VanVoorhees (2022), Instructor of Nursing; BS, Colorado Mesa University

Johanna Varner (2016), Associate Professor of Biology; BS, Massachusetts Institute of Technology; MS, Massachusetts Institute of Technology; PhD, University of Utah

Allison Vogel (2021), Technical Instructor, Program Director of Pharmacy Technology; BS, Colorado Mesa University; MEd, Regis University

Alana Voth (2024), Instructor of English; BA, Metropolitan State University of Denver; MFA, University of Oregon

W

Crystal Wagner (2025), Assistant Professor of Art & Design; BA, Atlanta College of Art; MFA, University of Tennessee

Richelle Walker (2021), Instructor of Nursing; Certificate, Technical College of the Rockies; BSN, Colorado Mesa University

Thomas Walla (2001), Professor of Biology; BA, University of California-San Diego; PhD, University of Oregon-Eugene

Abraham Wallin (2024), Assistant Professor of Education; BS, Minnesota State University; MS, University of Idaho; PhD, University of Idaho

Kara Walter (2019), Assistant Professor of Economics; BA, University of Southern Indiana; MA, University of New Mexico; PhD, University of New Mexico

Kaui Ward (2008), Instructor of Mathematics; BS, Colorado Mesa University; MS, University of Nevada-Las Vegas

Jun Watabe (2014), Professor of Music; BM, Aichi Prefectural University of Fine Arts and Music; MM, University of Northern Colorado; DA, University of Northern Colorado

Eric Watters (2018), Assistant Professor of Criminal Justice; BPA, Barry University; MPA, Barry University; PhD, University of the Cumberlands

Denita Weeks (2018), Associate Professor of Biology; BS, Grand Valley State University; MS, California State University-Northridge; PhD, University of Memphis

David Weinberg (2011), Associate Professor of Chemistry; BA, University of San Diego; PhD, California Institute of Technology

Rachel Weinzimmer (2020), Assistant Professor of Physician Assistant Studies; BS, University of Connecticut; MS, University of St Francis

Enzo Wendler (2020), Instructor of Mathematics; BS, University of Alaska-Fairbanks; MS, University of Saskatchewan; PhD, Washington State University

Megan Wendler (2020), Assistant Professor of Mathematics; BS, University of Alaska-Fairbanks; MS, University of Saskatchewan; PhD, Washington State University

Steve Werman (1990), Professor of Biology; BS, California State University-Long Beach; MS, California State University-Long Beach; PhD, University of Miami

Kevin Wernke (2023), Assistant Professor of Chemistry; BS, Colorado Mesa University; MS, Yale University

Ellise West (2024), Visiting Technical Instructor Culinary Arts; BA, Colorado Mesa University; MLA, Metropolitan State University of Denver

Shay West (2011), Instructor of Biology; BS, Colorado Mesa University; PhD, University of Colorado-Denver

Cozette Wheeler (2024), Visiting Technical Instructor of Automotive; AAS, Colorado Mesa University

Gannon White (2019), Associate Professor of Kinesiology; AS, Allen Community College; BGS, Lamar University; MEd, Stephen F. Austin State University; PhD, University of Northern Colorado

Joe White (2022), Technical Instructor Fire Science, Program Director Fire Science;

Catherine Whiting (2020), Associate Professor of Physics; BS, University of Iowa; MS, University of Iowa; PhD, University of Iowa

Brenda Wilhelm (2000), Professor of Sociology; BA, University of Minnesota; MA, University of Arizona; PhD, University of Arizona

Carla Wilhite (2021), Assistant Professor, Program Director of Occupational Therapy; BS, University of New Mexico; MM, Regis University; DOT, Creighton University

Gib Willett (2023), Associate Professor of Physical Therapy; BS, University of Nebraska Medical Center; MS, University of Nebraska Medical Center; PhD, University of Nebraska Medical Center

Sandra Willett (2023), Associate Professor of Physical Therapy; BS, University of Nebraska Medical Center; MS, University of Nebraska Medical Center; PhD, University of Nebraska Medical Center

John Williams (2024), Technical Instructor Paramedic/EMT;

Timothy Winegard (2018), Associate Professor of History; BA, University of Western Ontario; BEd, Nipissing University; BA, University of Guelph; MA, Royal Military College of Canada; PhD, University of Oxford

Freddy Witarsa (2017), Associate Professor of Environmental Science and Technology; BS, Drake University; PhD, University of Maryland

Eileen Woolwine (2017), Associate Professor of Nursing; BS, Western Governors University; MSN, Western Governors University

Z

Forrest Zerbe (2017), Instructor of Art; AAS, Colorado Mesa University; BGS, Indiana University-Purdue; MFA, Savannah College of Art and Design

Rhema Zlaten (2019), Assistant Professor of Mass Communication; BS, Oral Roberts University; MS, Colorado State University

University Leadership

Information about Colorado Mesa University's President, Vice Presidents, Provost, and unit Directors can be found on the University Leadership web page.

Campuses and Facilities

Colorado Mesa University's Main Campus encompasses 141 acres in the heart of Grand Junction, Colorado. Nestled between mountains and high-desert canyons, the area is home to some of the best outdoor recreation in the country and enjoys approximately 300 days of sunshine a year. Explore Colorado Mesa University's main campus virtually at coloradomesa.edu/virtual-tour.

CMU Tech is located just a few miles from the Main Campus and includes strong partnerships between the University, Mesa County Valley School District 51, and area businesses. CMU Tech serves the career technical education and workforce training needs of both the university and area high school students. It also serves the community through summer camps and targeted certificates to serve industry and businesses. Explore all that CMU Tech has to offer at tech.coloradomesa.edu.

Located at the base of the beautiful San Juan mountains, the Colorado Mesa University **Montrose Campus** provides access to a variety of associate and bachelor degree programs in a scenic, smaller community campus setting. The Montrose Campus is located on South Cascade Avenue in Montrose, Colorado, and offers courses leading to the completion of selected associate of art (AA) degrees; bachelor of art (BA) degree completion tracks; essential learning classes, and selected upper-division and graduate-level classes. Explore the Montrose Campus at coloradomesa.edu/montrose.

The **Electric Lineworker Training Facility**, located at 29 and D 1/2 roads in Grand Junction, Colorado, houses staff offices, training areas and classrooms for the electric lineworker program.

The **Whitewater Facilities** include CMU's Forensic Investigation Research Station, which remains the only high altitude facility of its kind in the nation. Also located in Whitewater is our **Colorado Law Enforcement Training Center** which is run jointly with Mesa County and the Grand Junction Fire Department.

Academic Buildings

Archuleta Center (2009), located near the Bishop Campus in the Foresight Industrial Park, houses classrooms and offices for construction management and machining technology programs. The center features an electrical lab, a computer lab and 9,200 square-feet of high bay learning labs.

Chinle Hall (2013), located on the Bishop Campus, houses classroom and laboratory space for certificate and associate degree programs in health sciences.

Confluence Hall (2018), the new 68,700 square-foot engineering building opened in January 2018. It houses CMU's engineering programs, including the civil, mechanical and electrical/computer engineering programs delivered at CMU through a partnership with the University of Colorado Boulder. The building is also the new home for Eureka! McConnell Math and Science Museum.

Dominguez Hall (2008) houses modern classrooms, lecture auditoriums, small breakout rooms for student collaboration and offices for business and teacher education faculty. It features an outdoor patio, a coffee bar and a technology-enhanced boardroom.

Escalante Hall (2014) The nearly 76,000-square-foot building is home to state-of-the-art classrooms, four computer labs, one open lab, several lecture-style classrooms, numerous smaller seminar rooms, two television studios and offices for language, literature and mass communication faculty and staff. A state-of-the-art television production studio is part of the mass communication facilities.

Foster Field House (2014, 2023) hosts numerous indoor sport activities throughout the year and includes the Chamberlin Cycling Center and a 38-foot climbing wall. The facility also hosts a litany of external sporting events and regional athletic tournaments. Expansion completed in 2023 included four new wood courts, Kinesiology space, drop down basketball hoops and volleyball nets, and a running track that connects to the Maverick Center.

Health Sciences Building (2014, 2017), located on the north end of the main campus, this building is the center of CMU's growing health care offerings. Once the home of Community Hospital, the building represents a core of CMU's comprehensive health care programs. The building has been remodeled and now houses classrooms, a simulation center and laboratory space for health science students.

Houston Hall (1940, 2011) is the first permanent building constructed on CMU's main campus. It was renovated and expanded in 2010-2011 and includes classrooms and computer laboratories where a variety of subject areas are taught including humanities and the social and behavioral sciences.

Jac Kephart Fine Arts Building (2002) provides studio laboratories, offices and classrooms for studio art and graphic design. This facility has a large covered outdoor work area for ceramics kilns and a bronze foundry. The building design allows viewing of the studio activities from the hallways.

Kayenta Hall (1997), located on the Bishop Campus, houses CMU Tech student services offices and the Community Education Center, as well as instructional space for culinary arts, computer aided design, the peace officer standards and training academy, applied business, visual communications/filmmaking, and high school programs.

Maverick Center (2009) houses the Department of Kinesiology, intercollegiate athletics and campus recreation facilities. Included in the Maverick Center are the:

- El Pomar Natatorium - One of the premier aquatic facilities in the western United States, it features a 50-meter competition pool that is ten lanes wide and eight feet deep with two movable bulkheads. The diving well includes a pair of one- and three-meter boards. The natatorium also features water agitators and 3M sparger, a state-of-the-art Colorado Time Systems with speedlights and aqua-grip touch pads, Paragon sand top starting platforms with quickset anchors, a 21-foot by 10-foot digital display system, 22 loudspeakers that surround the pool and 750 permanent balcony seats.
- Hamilton Recreation Center - It includes a large fitness/strength training area equipped with weights and cardiovascular machines, a recreation gymnasium for intramural and club sports, two championship racquetball/wallyball courts (one of which can convert into a Squash Court), an indoor track and a 38-foot high climbing wall. The center was expanded in 2014 and now offers extended service hours.
- Monfort Family Human Performance Lab - An integrative multi-use laboratory that features state-of-the art equipment and provides advanced physiological and biomechanical performance and wellness testing for students, faculty, staff and community members. The facility now features a new environmental chamber to test the effects of both temperature and altitude on performance.

- Roe F. Saunders Field House - Originally constructed in 1968 and expanded in 1996, it provides facilities for a variety of physical education and recreation activities and includes Brownson Arena, a 2000-seat arena that surrounds the Wayne Nelson Court and is home to Colorado Mesa University's basketball, volleyball and wrestling teams. The Brownson Arena lobby was remodeled in 2018 to include modern design, a retail Maverick Store outlet and an interactive, touch-screen television system showcasing the history of CMU athletics.

The north end of the Maverick Center complex includes the **Elliott Tennis Complex** and **Community Hospital Unity Field**, home to Maverick tennis, soccer, and lacrosse. Immediately west of the building is **Bus Bergman Sports Complex (2022)** encompassing physical education and practice athletic fields, The Diamond at Hamilton Ballpark, the Softball Field, and the Track and Field.

Innovation and Cybersecurity Center (2019) is a building dedicated to advancing CMU's cybersecurity program in the lower level while the upper level is dedicated to providing creative space for students and the community. The Maverick Innovation Center focuses on technological innovation, patent protection, intellectual property designation, technology transfer and interdisciplinary, creative work space.

Moss Performing Arts Center (2002, 2009) is home to performance venues, classrooms, choral and instrumental rehearsal rooms, dressing rooms, and offices. It features the lobby, originally built in 1969; the 605-seat William S. Robinson Theatre with fly loft and modern drama lighting systems; the smaller, more intimate Mesa Experimental Theatre; and the 300-seat Love Recital Hall. A three-story addition to the south end includes a scene shop, a costume shop, and a dance studio. In 2019 the Dr. Ruth Maurer practice facility was established in the south section of the facility.

John U. Tomlinson Library (1986, 2015) features 30 study rooms, a 24-hour study area, two classrooms, a conference room, dining and coffee shop, study tables, and comfortable seating. The first floor includes the Library Research Help Desk, IT Help Desk, Center for Teaching and Learning, and Distance Education. The third floor houses Special Collections and Archives, as well as the Tutoring and Writing Center. Reservable study rooms are equipped with computers, large wall monitors, and whiteboards. Computers, printers, and scanners are also available throughout the building.

Kerry Youngblood Building (1992), located on the Bishop campus, houses CMU Tech administrative offices and classrooms and laboratories for automotive and diesel technology, welding, process systems technology and technology integration.

St. Mary's Medical Education Center (2022) houses the physician assistant, physical therapy and occupational therapy programs.

Wubben Hall and Science Center (1962, 2010) contains classrooms, laboratories, offices and storage areas for physical and life sciences, mathematics and computer sciences. A special feature is the Weldon Lecture Hall that seats 100 persons. This building was completely remodeled in 1998 and connected to the Science Center. In 2010, a three-story, 31,900 square-feet addition to the west of the existing facility expanded classroom and research space for the university's science programs. The Science Center (1996, 2010) contains modern laboratories for biology, chemistry, geology and environmental sciences. This building also contains an electron microscopy laboratory and an herbarium. A special feature is the octagonal Saccomanno Lecture Hall that seats 120 persons and has full multimedia capabilities. An attractive courtyard between this building and Wubben Hall provides space for outdoor lectures and study. There is also a rooftop greenhouse that houses tropical vegetation for biology students to study.

Administrative Buildings

Admissions Welcome Center (2008) houses offices for admissions staff responsible for assisting students with a smooth transition into their higher education experience. The welcome center offers multimedia meeting spaces for visitation programs and campus tours.

Campus Services (2007) houses offices for purchasing, warehouse/receiving and mail room staff as well as offices, shops and storage areas for facilities staff.

Doug Sortor Hall houses the CMU Foundation and the Alumni Association.

Little Mavericks Learning Center (2018) and the adjacent **Mini Mavericks Learning Center** offer child care to students, faculty, staff and the community.

Lowell Heiny Hall (1967) is a four-level building housing faculty and administrative offices including Academic Affairs, Finance and Budgeting, Financial Aid, Human Resources, Information Technology, Institutional Research, IRIS, Office of the President, Registrar's Office, Sponsored Programs, Student Accounts, Student Services and First-Gen+ Support Center. The west side of the building features the **Gordon Gilbert Amphitheater** (dedicated 2009), an outdoor gathering/classroom space.

Outdoor Program (2018, 2019) is Colorado Mesa University's headquarters for outdoor adventure and education. Located on North Avenue near Houston Hall, the OP office offers a gathering space and provides equipment rentals for biking, boating, camping, mountaineering, rock climbing, skiing, snowboarding and more.

Residence Life (2008), located directly adjacent to the Admission Welcome Center, houses staff responsible for the on-campus living experience. In addition to providing educational events and activities, Residence Life helps to create safe, positive communities, offers leadership opportunities and manages student behavioral concerns.

Rotary Hall (1969, 2008, 2010, 2014) houses the E-Sports arena on the first floor and the Alumni and Career Services offices on the second.

Residence Halls

Albers Hall (1935, 2008, 2012) previously housed staffed offices but transitioned to student housing in 2023.

Aspen Apartments (2020) are coed and house 124 second year and above students. Aspen Apartments are configured in four single bedroom apartments and offer study lounges, large community kitchens, and free laundry rooms on each floor. Each apartment includes a furnished living area with a 42" Television and kitchenette. The kitchenette includes a small refrigerator, sink, and cabinet/counter space. A student staffed front desk is also provided for your security and convenience.

Bunting Hall (2011) is a co-ed, suite-style building that can accommodate up to 328 students. The building offers suites with standard double rooms, lofted doubles, singles, super single rooms.

Garfield Hall (2013, 2014, 2015) is a traditional style residence hall that offers accommodations for 435 residents in double bedrooms. Each floor boasts three lounges and a community kitchen.

Grand Mesa Hall (2006) houses 286 residents in suites with a mixture of single, super single and double bedrooms. Each suite has at least two bathrooms with separate counter and sink facilities. Suites are furnished with "bunkable" beds and movable furniture. The living area in each suite has comfortable seating and a 32" flat screen, wall-mounted television.

Monument Hall (1997) provides suite-style living and is designated as our Substance Free Hall. Students who request to live in Monument must sign a contract pledging to be substance free on and off campus. Monument Hall houses 180 residents in suites that share a bathroom. Each double-bed room is furnished with carpet and movable furniture.

Lucero Hall (2009) is configured in five or six-bed suites in the east wing and houses 179 first- year residents. This hall includes a 24hr Fitness Facility located in the lower level. At 1200 square feet, it includes cardio equipment, strength equipment and core/stretching equipment. Access to the fitness facility may be requested via the Residence Life staff.

Lucero Hall Apartments (2009) houses 120 second-year and above students. There are single and double rooms and six residents per semi-suite. Each apartment has a kitchen and two bathrooms with separate counter/sink areas. This hall includes a 24hr Fitness Facility located in the lower level. At 1200 square feet, it includes cardio equipment, strength equipment and core/stretching equipment. All current, registered students have MavCard access to this portion the hall.

Orchard Avenue Apartments (2012) offers fully furnished, three and six-person apartments for 185 students. Most apartments include individual balconies as well as large community rooms and balconies on each floor.

Piñon Hall (1967, 2015, 2019) was fully renovated in 2015 and 2019 and is one of the original housing facilities on campus.

Rait Hall (1966) and **Tolman Hall (1966)** provide comfortable living quarters for 200 residents in each hall. Most rooms are doubles, but a few single rooms are available.

Walnut Ridge Apartments (1978) are furnished three- and four-bedroom apartments available to 120 sophomores, juniors, and seniors. Kitchen and bathrooms were renovated in 2017.

Wingate Hall (2016) is a traditional style residence housing 148 first- or second-year students who have a strong focus on academics. Each suite of two rooms features a lofted study room for the four residents. Community kitchens, bathrooms, study lounges, TV lounges and laundry are on each floor.

Wingate Apartments (2024) house 140 second-year and above students. The units consist of four single-bedroom apartments each with a furnished living room, 42" TV, kitchenette, separated shower and vanity areas. Bedrooms are furnished with carpet and moveable furniture including a full XL bed, desk, chair, and under bed storage.

Community and Outdoor Spaces

Academic Quad is the quadrangle surrounded by Wubben Hall to the north, Moss Performing Arts Center to the east, Houston Hall to the south, and Tomlinson Library to the west. Throughout the year it is used as one of the campus' major corridors and as an outdoor meeting space for various campus events and activities.

Asteria Theatre (2024) is a world-class venue designed to deliver exceptional performance experiences for audiences and artists alike. The theatre features an 869-seat auditorium, 120-person multi-purpose event room and VIP club level with private boxes, while the rooftop patio provides stunning views of the Grand Valley. Behind the scenes, performers benefit from spacious dressing rooms, star suites, a green room, and fully equipped chorus rooms. The venue is built for top-tier productions, boasting a taller fly space, state-of-the-art rigging, premier lighting fixtures, an adjustable orchestra pit and expertly engineered acoustics. With a dedicated rehearsal space, loading dock for touring shows, and superior back-of-house amenities, the Asteria Theatre is the ultimate destination for unforgettable performances.

Bike Park (2020), located adjacent to the Hotel Maverick, features multiple courses for bicycle enthusiasts of all kinds to test their skills and race each other.

Center for Reflection opened in spring 2021 and is a nondenominational, interfaith sanctuary. It provides a space for students, faculty and staff to reflect, contemplate and celebrate life. This campus sanctuary provides a space for candle light vigils, prayer circles and memorial services.

Delta Field is located in front of the Fine Arts Building. The space is used throughout the year for various campus activities and contains expansive fields for intramural and club sports.

Elm Avenue Quad sits between Monument Hall, the Admissions Welcome Center, and Albers Hall. This space is used for many student activities throughout the year including the Homecoming bonfire, Piñon Palooza, and some all-campus barbecues. Students are regularly found here playing Frisbee, tossing a football, or socializing. The quadrangle/pedestrian mall features "Where Rivers Meet" (2006), a fountain that seeks to portray the Grand Valley's history, geography and the legacy of the junction of the Colorado and Gunnison rivers.

Hotel Maverick (2020) is a 60-room boutique teaching hotel located in the heart of campus near the rugby pitch and pump track. The hotel features a high end restaurant, The Devil's Kitchen and Betty's Coffee Shop. The hotel provides hands-on learning experiences for business and culinary students.

The Plaza (2014) the central, ellipse-shaped open space in the heart of campus is bound on four sides by the University Center, Monument Hall, Escalante Hall and Dominguez Hall. It provides a venue for large-scale productions, events and recreational activities.

University Center (2010) is a two-story, 100,000 square-foot building and four-level parking structure that serves as the hub of campus life.

The facility features retail food service options that include Rowdy's convenience store, Starbucks®, Chick-fil-A®, Flat Top Grill, Umai Bowls and Rolls, and The Caf. It also houses Arcadia, an activity lounge with billiard tables, games, and a pub that allows students, faculty, staff, alumni, and the general public to enjoy a relaxed atmosphere for a drink and food. On the first floor you will also find the MAVcard Office and the Information Desk/Parking Services customer service area, as well as The Maverick Store, Colorado Mesa University's Bookstore and Fan Shop.

The center's second floor houses offices for The Criterion newspaper, KMSA 91.3FM radio, the Campus Design Studio and the Student Life offices. It includes office and meeting spaces for Associated Student Government, Programming Activities Council, Club Advisory Board and the Cultural Diversity Board. The building also features the Meyer Ballroom, six meeting rooms and a large south-facing terrace.

Degrees and Programs of Study

Colorado Mesa University offers programs leading to awards in five levels: certificates (graduate, professional, and technical), associate's degrees, baccalaureate degrees, master's degrees and doctoral degrees.

General requirements for each degree and certificate program are listed in the graduation requirements sections of this catalog and in program descriptions found under Areas of Study (p. 100). While these general requirements are as correct and current as possible, some changes may occur as programs are updated.

Graduate degrees offered:

- Master of Arts in Education (MA, Education or MAEd)
- Master of Business Administration (MBA)
- Master of Physician Assistant Studies (MPAS)
- Master of Science in Athletic Training (MSAT)
- Master of Science in Nursing (MSN)
- Master of Science in Occupational Therapy (MSOT)
- Master of Science in Sport Management (MS)
- Master of Social Work (MSW)
- Doctor of Nursing Practice (DNP)
- Doctor of Physical Therapy (DPT)

Baccalaureate degrees offered:

- Bachelor of Applied Science (BAS)
- Bachelor of Arts (BA)
- Bachelor of Business Administration (BBA)
- Bachelor of Fine Arts (BFA)
- Bachelor of Music (BM)
- Bachelor of Music Education (BME)
- Bachelor of Science (BS)
- Bachelor of Science in Radiologic Science (BSRS)
- Bachelor of Science in Nursing (BSN)
- Bachelor of Social Work (BSW)

These are programs of study that generally consist of 120 or more credit hours and provide extensive preparation in a specific major. Concentrations are available within many of the baccalaureate degrees.

Engineering: Through a partnership with the University of Colorado Boulder, students can complete a Bachelor of Science in Civil Engineering, Electrical/Computer Engineering, or Mechanical Engineering from the University of Colorado-Boulder on the Colorado Mesa University campus.

Pre-Health Science Preparation: Admission to the study of dentistry, medicine, optometry, physical therapy, and veterinary medicine usually requires the completion of a baccalaureate degree, often in physical or biological sciences. Students planning to enter one of these health fields should declare a major in one of the sciences after consultation with a faculty advisor.

Associate degrees are awarded in two broad areas:

- Associate of Arts or Associate of Science (AA, AS) degrees are available in a number of emphases at Colorado Mesa University. Students enrolling in these degrees may be preparing for immediate employment upon graduation or they may expect the two-year degree to be the first phase toward a baccalaureate degree. All AA and AS degrees include the statewide common core of general education curriculum and, when completed successfully, meet the lower-division essential learning requirements of most baccalaureate degree programs.
- Associate of Applied Science (AAS) degrees are offered in a variety of technical and vocational programs. AAS programs average two years in length.

Certificates are awarded in three categories:

- Graduate Certificates contain graduate level (5xx-7xx) courses. A student must be admitted as a graduate student to attempt a graduate certificate.
- Professional Certificates are comprised of primarily upper division (3xx-4xx) courses. For a student to attempt a Professional Certificate after the student has earned a baccalaureate degree, the student must be admitted to study as a post-baccalaureate student or as a graduate student.
- Technical Certificates are normally chosen by students whose immediate plans are a career in a technical area. They are comprised of lower division (1xx-2xx) courses. While the length may vary, these programs are usually one-year long and are designed to train for specific skills required for employment.

Non-Credit Continuing Education Courses

Non-credit continuing education courses toward personal, civic, vocational, and professional self-improvement are offered through the University's Continuing Education Program.

Disclosure Statements

Accreditation Statement

Colorado Mesa University (CMU) is accredited by the Higher Learning Commission (HLC).

Higher Learning Commission
230 South LaSalle Street, Suite 7-500, Chicago, Illinois 60604-1411
Phone: 800.621.7440 / 312.263.0456 | Fax: 312.263.7462
| info@hlcommission.org

Verification of CMU's status can be found on the HLC website. Additional details on CMU's HLC and program-specific state and national agency accreditation is provided in the Overview of Colorado Mesa University (p. 28).

Higher Education Opportunity Act (HEOA) Disclosure Information

In compliance with the Higher Education Opportunity Act of 2008, information about Colorado Mesa University is available on the University's website. Information disclosed includes program information, physical plant facilities, faculty information, financial aid and textbook information, as well as student-right-to-know information.

State Authorization Compliance for Distance Education (SARA)

To offer online courses and other distance education activities—such as internships, clinical placements, or student teaching—outside of Colorado, Colorado Mesa University must comply with relevant state and federal regulations. CMU and CMU Tech participate in the State Authorization Reciprocity Agreement (SARA), a national initiative managed by the National Council of State Authorization Reciprocity Agreements (NC-SARA), which promotes student access to quality distance education.

Student Complaint Resolution

CMU is committed to resolving student concerns fairly and promptly. Students should first follow CMU's Student Complaint Policy. If the issue remains unresolved, they may file a complaint with Colorado's SARA Portal Entity at the Colorado Department of Higher Education.

Students located outside Colorado can also contact the SARA Portal Entity in the state where they are enrolled. For more details, view the complaint contact for each state and the SARA complaint policy and process.

Overview of Colorado Mesa University

History

The founding of Grand Junction Junior College in 1925, with 39 students enrolled in seven classes, marked the beginning of post-secondary education on Colorado's Western Slope. As Mesa Junior College, the number of students grew to 270 by fall 1937; headcount increased to 1,300 by 1963. Over that period, the range of community college programs expanded, and an area vocational school was added in 1967. By 1974, the college had evolved into a baccalaureate-granting institution, leading enrollment to triple in 16 years and reach 3,891 in fall 1979. In 1988, the College was renamed Mesa State College and in 1994 the Colorado legislature authorized Mesa State College to offer selected graduate degrees in response to regional needs.

With the addition of graduate programs, Mesa State College became the only four-year institution in Colorado to offer a full-range of undergraduate programming that spans technical certificates, associate degrees (both academic and vocational), and baccalaureate degrees to graduate certificates and degrees.

In 2003, Mesa State College was statutorily assigned the responsibility of meeting the educational needs for 14 Western Slope counties: Delta, Eagle, Garfield, Grand, Jackson, Mesa, Moffat, Montrose, Ouray, Pitkin, Rio Blanco, Routt, San Miguel and Summit.

In 2005, Mesa State College formally created a two-year, open admission division: CMU Tech (previously known as Western Colorado Community College).

The role and mission of the institution was reenacted in 2010 by the Colorado General Assembly (Colorado Revised Statutes 23-53-101) and amended in 2011 when Mesa State College was renamed Colorado Mesa University. After a 2012 amendment, the role & mission is:

> There is hereby established a university at Grand Junction, to be known as Colorado Mesa University, which shall be a general baccalaureate and graduate institution with selective admission standards. Colorado Mesa University shall offer liberal arts and sciences, professional, and technical degree programs and a limited number of graduate programs. Colorado Mesa University shall also maintain a community college role and mission, including career and technical education programs. Colorado Mesa University shall receive resident credit for two-year course offerings in its commission-approved service area. Colorado Mesa University shall also serve as a regional education provider.

Vision, Mission and Values

Vision

CMU aspires to be a Human Scale University that serves as a model of the world we want to create - a world where people aspire to love, extend dignity, choose courage, demonstrate humility, develop resiliency, celebrate curiosity, and use power for good.

Institutional Mission

As a Human Scale University, our mission is to provide an affordable and accessible education and form meaningful and mutually enriching partnerships that support the well-being and vibrancy of our community.

Values

To fulfill our mission and reach toward our vision, our work is grounded in seven values: love, dignity, courage, humility, resiliency, curiosity, and power. When we practice these values, we are able to support the diversity of our campus, learning from and honoring the rich assortment of beliefs and backgrounds that converge on our campus that make for a vibrant culture and community.

Accreditation

Colorado Mesa University is accredited by the Higher Learning Commission (hlcommission.org), an institutional accreditation agency recognized by the U.S. Department of Education.

The following programs at Colorado Mesa University are accredited, authorized and/or recognized by external professional accreditation bodies specific to that discipline:

- **Athletic Training:** 5-year initial accreditation by the Commission on Accreditation of Athletic Training Education (CAATE).
- **Aviation Technology:** Federal Aviation Association (FAA).
- **Business:** Association to Advance Collegiate Schools of Business (AASCB).
- **EMT/Paramedic:** Accredited by the Commission on Accreditation of Allied Health Education Programs, www.caahep.org, upon recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP), www.coaemsp.org.
- **Landman Energy Management Program**: American Association of Professional Landmen (AAPL).
- **Mechanical Engineering Technology**: Bachelor of Science Mechanical Engineering Technology Program accredited by the Engineering Technology Accreditation Commission (ETAC) of The Accreditation Board for Engineering and Technology, Inc., (ABET), www.abet.org.
- **Medical Laboratory Technician**: Accredited through the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). Address: 5600 N. River Rd, Suite 720, Rosemont, IL 60018-5119. Phone: 773.714.8880.
- **Music**: Accredited Member of the National Association of Schools of Music, 11250 Roger Bacon Drive, Suite 21, Reston, VA 20190-5248. Phone: 703.437.0700, Email: info@arts-accredit.org.
- **Nursing**: Baccalaureate degree program in nursing, master's degree program in nursing, and Doctor of Nursing Practice program at Colorado Mesa University accredited by the Commission on Collegiate Nursing Education (CCNE), 655 K Street, NW, Suite 750, Washington, DC 20001, 202.887.6791.
- **Nursing**: Practical Nursing Program at Colorado Mesa University located in Grand Junction, Colorado accredited by the Accreditation Commission for Education in Nursing (ACEN), 3390 Peachtree Road NE, Suite 1400, Atlanta, GA 30326, 404.975.5000.
- **Nursing:** Associate Nursing Program at Colorado Mesa University, located at the Montrose, Colorado campus accredited by the Accreditation Commission for Education in Nursing (ACEN), 3390 Peachtree Road NE, Suite 1400, Atlanta, GA 30326, 404.975.5000.
- **Occupational Therapy:** Accredited through the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA) located at 7501 Wisconsin Ave, Suite 510E Bethseda, MD 20814. Phone: 301.652.AOTA, www.acoteonline.org.
- **Peace Officer Standards and Training (POST):** Authorized by Colorado Peace Officer Standards and Training.
- **Pharmacy Technician:** Accredited by Accreditation Council for Pharmacy Education (ACPE)/American Society of Health-System Pharmacists (ASHP).
- **Physical Therapy:** Effective April 25, 2023, Candidate for Accreditation status granted by the Commission on Accreditation in Physical Therapy Education, 3030 Potomac Ave., Suite 100, Alexandria, VA 22305-3085; Phone: 703.706.3245; Email: accreditation@apta.org. Candidate for Accreditation is an accreditation status of affiliation with the Commission on Accreditation in Physical Therapy Education that indicates the program may matriculate students in technical/professional courses. Achievement of Candidate for Accreditation status does not assure that the program will be granted Initial Accreditation. Information on licensing requirements should be directed to the Federation of State Boards of Physical Therapy (FSBPT) www.fsbpt.org, or specific state boards (a list of state boards and contact information is available on the FSBPT website).
- **Physician Assistant Studies:** Accreditation Review Commission on Education for the Physician Assistant, Inc. (ARC-PA) has granted Accreditation-Continued status to Colorado Mesa University, Master of Physician Assistant Studies Program sponsored by Colorado Mesa University. Program accreditation history can be viewed on the ARC-PA website at: www.arc-pa.org/accreditation-history-colorado-mesa-university.
- **Radiologic Sciences:** Bachelor of Science in Radiologic Sciences (BSRS) Program accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT) 20 North Wacker Drive, Suite 2850, Chicago, IL 60606-3182, 312-704-5300, Email: mail@jrcert.org.
- **Social Work:** Bachelor of Social Work accredited through the Council on Social Work Education.
- **Social Work:** Master of Social Work program at CMU was granted Candidacy status March, 2024 by the Board of Accreditation, Council on Social Work Education. The Candidacy process is typically a three-year process that includes Pre-Candidacy, Candidacy, and Initial Accreditation. Students who enter a program in Candidacy in the academic year in which they begin their program of study will be retroactively recognized as having graduated from a CSWE-accredited program once the program attains Initial Accreditation.
- **Surgical Technology:** Accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) upon the recommendation of the Accrediting Review Council on Education in Surgical Technology and Surgical Assisting (ARC/STSA). ARC/STSA contact information: Mailing address: 19751 East Main Street, Suite #339, Parker, CO 80138, Phone: 303.694.9262, Email: info@arcstsa.org. CAAHEP contact information: Mailing address: 9355-113th St. N, #7709, Seminole, FL 33775, Phone: 727.210.2350, www.caahep.org.
- **Teacher Education**: Authorized by the Colorado Commission on Higher Education and the Colorado Department of Education.
- **Transportation Services**: Accredited by the Automotive Service Excellence (ASE) Education Foundation.
- **Veterinary Technology:** Initial accreditation by the American Veterinary Medical Association Committee on Veterinary Technician Education and Activities (AVMA CVTEA), www.avma.org/education/center-for-veterinary-accreditation.

Note: Students completing the University of Colorado Boulder/Colorado Mesa University Mechanical Engineering Partnership Program will

receive a Bachelor of Science in Mechanical Engineering Degree from the University of Colorado Boulder. The ME Partnership Program is accredited by the Engineering Accreditation Commission of ABET.

For further information on program-level accreditation, please see www.coloradomesa.edu/accreditation/program-level or Academic Affairs.

The University is designated as balanced arts and sciences/professions with some graduate coexistence as part of the Carnegie classification of higher education institutions.

Auxiliary Campuses

Montrose Campus

The Montrose Campus of CMU and CMU Tech provides the Western Slope's second largest community local access to postsecondary education and technical training. For local students pursuing a bachelor's degree, it offers a convenient location to complete general education courses before attending the main campus to take courses in their major. For students who want to complete their education in Montrose, the campus offers several associate degrees and certificate programs that include programs in Nursing and Criminal Justice, as well as a Bachelor of Science degree for students who have a practical nursing license (LPN-BSN).

To meet the needs of the local school district and community, early morning as well as evening classes are available to complement daytime class schedules. With smaller class sizes, students receive personal attention from their instructors.

The campus is adjacent to the Montrose Regional Library in the heart of beautiful downtown Montrose. Facilities include classrooms with advanced instructional technology, nursing labs, biology and computer labs, student and study lounges. The campus also has a career and technical facility for welding, manufacturing technology, and Police Officer Standards Training (POST) for students interested in a career in law enforcement. The POST (Western Colorado Law Enforcement Academy) is a summer only academy that starts in mid May of each year and concludes toward the middle of September.

On campus housing is available for a limited number of eligible students and is available on a first come, first served qualified basis.

Many, unique scholarship opportunities exist for students attending the Montrose campus.

Admissions, advising and student services staff are available in the Branscome Center, open from 8 a.m. to 6:30 p.m., Monday through Thursday, and until 4 p.m. on Friday. Services include admissions counseling, orientation, academic advising, financial aid, course registration, testing services, career counseling, and tutoring. Future and current students can make an advising appointment in advance by calling 970.249.7009.

Visit the CMU Montrose website for more information about the academic programs available at the Montrose campus.

Tilman M. Bishop Campus

The Tilman M. Bishop Campus of Colorado Mesa University is the result of a partnership of the University, Mesa County Valley School District 51, and area businesses. The applied technology programs at the Bishop Campus serve the technical education needs of both university and area high school students, primarily those in District 51.

Students at the Bishop Campus—the main site of CMU Tech, Colorado Mesa University's two-year division—can earn two-year associate degrees or technical certificates. High school students can earn university credits through concurrent enrollment. Among the services available at the Bishop campus are college admission, class scheduling, academic and interest assessments, bill payments, financial aid assistance, resume preparation, job interviewing skills, and placement in internships and jobs. For more information call 970.255.2670 or toll free, 888.455.2617.

Diversity Statement

Colorado Mesa University extends its services to anyone regardless of age, race, color, national origin, religion, sex, disability, veteran status, or sexual orientation.

Following is the statement of philosophy on diversity which has been adopted by the faculty at Colorado Mesa University:

"Colorado Mesa University is a community of scholars in the liberal arts tradition. As faculty we believe that all people, regardless of age, race, color, national origin, religion, sex, disability, veteran status, or sexual orientation, have something worthwhile to contribute and that these contributions benefit us all. Therefore, we intend that within our academic community all cultural differences will be treated with equal respect and tolerance. We desire that our students have the opportunity to appreciate the diversity of our modern world, and we encourage them to partake of the resources available within our community. As faculty we pledge ourselves to provide as many divergent cultural experiences for our students as the resources of the college and the needs of our disciplines allow."

"To further tolerance and appreciation of our society's diversity, Colorado Mesa University requires that all graduates fulfill General Education requirements. In doing so we honor the validity of a liberal education. We hope that the experience will help our students understand how to appreciate the true diversity of the world. Because diversity promotes multiple opinions, techniques, viewpoints and approaches, it is not the individual courses within the General Education program which we believe will further the above-stated goals, but the whole experience of the program itself."

Colorado Mesa University expects all members of the campus community to uphold the highest standards of civil and ethical conduct and to promote a culture of respect and inclusiveness. For more information on these expectations, review the Resolution Concerning Expectations Regarding Safety, Violence, Intimidation, Abuse and Discrimination at Colorado Mesa University.

Student Bill of Rights

The Colorado General Assembly implemented the Student Bill of Rights to assure that students enrolled in public institutions of higher education have the following rights:

1. A quality general education experience that develops competencies in reading, writing, mathematics, technology and critical thinking through an integrated arts and science experience;
2. Students should be able to complete their associate of arts and associate of science degree programs in no more than sixty credit hours or their baccalaureate programs in no more than one hundred

twenty credit hours, unless there are additional degree requirements recognized by the commission;

3. A student can sign a two-year or four-year graduation agreement that formalizes a plan for the student to obtain a degree in two or four years, unless there are additional degree requirements recognized by the commission;
4. Students have a right to clear and concise information concerning which courses must be completed successfully to complete their degrees;
5. Students have a right to know which courses are transferable among the state public two-year and four-year institutions of higher education;
6. Students, upon successful completion of core general education courses, should have those courses satisfy the core course requirements of all Colorado public institutions of higher education;
7. Students have a right to know if courses from one or more public higher education institutions satisfy the students' graduation requirements;
8. A student's credit for the completion of the core requirements and core courses shall not expire for ten years from the date of initial enrollment and shall be transferable.

ACADEMIC CALENDAR

2025-2026 Academic Calendar

The following dates are subject to change. Changes will be published to the Important Dates webpage.

Summer Semester 2025

Date	Event
May 26	Memorial Day – No classes
May 27	Full semester and first summer module classes begin
May 29	Last day to add or drop a first summer module class
June 3	Last day to add or drop a full semester class
June 12	Last day to withdraw from a first summer module class with a grade of "W"
June 19	Juneteenth - No Classes
June 21	First summer module classes end
June 23	Second summer module classes begin
June 23	Summer census - date after which credit hours are counted in COF attempted hours
June 25	Last day to add or drop a second summer module class
July 2	Last day to withdraw from a full semester class with a grade of "W"
July 4	Independence Day – No classes
July 10	Last day to withdraw from a second summer module class with a grade of "W"
July 18	Full semester and second summer module classes end

Fall Semester 2025

Date	Event
August 2	Residency petitions due to Tuition Classification Officer (Admissions Office)
August 18	Full semester and first module classes begin
August 25	Last day to add or drop a first module class
September 1	Labor day - campus open - classes in session
September 2	Last day to add or drop a full semester class
September 2	Fall census – date after which credit hours are counted in COF attempted hours
September 8	Late start classes begin
September 18	Last day to add or drop a late start class
September 22	Last day to withdraw from a first module class with a grade of "W"
October 1	Deadline for filing Intent to Graduate form with Registrar's Office for spring and summer graduates
October 9	First module classes end
October 10-12	Fall Break – no classes
October 13	Second module classes begin
October 20	Last day to add or drop a second module class
October 20	Registration for spring 2026 classes begin
October 27	Last day to withdraw from a full semester class with a grade of "W"
November 3	Last day to withdraw from a late start session with a grade of "W"
November 13	Last day to withdraw from a second module class with a grade of "W"
November 24-28	Thanksgiving holiday – no classes
December 8-11	Final examinations
December 11	Fall semester ends
December 12	Commencement

Spring Semester 2026 (including January Term)

Date	Event
January 2	January term (J-Term) classes begin
January 5	Last day to add or drop a January term class
January 5	Residency petitions due to Tuition Classification Officer (Admissions Office)
January 9	Last day to withdraw from a January term class with a grade of "W"
January 16	January term classes end
January 19	Martin Luther King, Jr. Day – No Classes
January 20	Full semester and first module classes begin
January 27	Last day to add or drop a first module class
February 4	Last day to add or drop a full semester class
February 4	Spring census – date after which credit hours are counted in COF attempted hours
February 9	Late start classes begin
February 20	Last day to add or drop a late start class
February 25	Last day to withdraw from a first module class with a grade of "W"
March 1	Deadline for filing Intent to Graduate form with Registrar's Office for fall graduates
March 13	First module classes end
March 16-20	Spring Break – No Classes
March 23	Second module classes begin
March 30	Last day to add or drop a second module class
March 30	Registration for summer and fall 2026 begins
April 6	Last day to withdraw from full semester classes with a grade of "W"
April 13	Last day to withdraw from a late start session with a grade of "W"
April 24	Last day to withdraw from a second module class with a grade of "W"
May 11-14	Final examinations
May 14	Spring semester ends
May 16	Commencement

POLICY STATEMENTS

General Policy Statement

Colorado Mesa University is a comprehensive coeducational institution operated under the governance of the Board of Trustees of Colorado Mesa University. The programs, policies, statements, and procedures contained in this catalog are subject to change by the University without prior notice. Colorado Mesa University reserves the right to, at any time, withdraw courses or modify the rules, calendar, curriculum, graduation procedures, and any other requirements affecting students. While the information contained in this catalog is current and correct insofar as possible at the time of publication, students are advised to check with appropriate University officials, department web pages, and academic and student services offices for up-to-date information.

This catalog is intended for the guidance of students and faculty but does not constitute a guarantee that all courses listed will actually be offered during any particular academic year. Colorado Mesa University reserves the right to withdraw or add courses prior to the beginning of any semester or summer term. In some programs, certain courses may be offered on an alternate-year basis or as determined by apparent demand. All program offerings are contingent upon adequate appropriations by the Colorado General Assembly.

Colorado Mesa University is committed to providing admission or access to, or treatment or employment in, its educational endeavors, consonant with applicable laws and without regard to race, creed, color, religion, sex, disability, age, national origin, veteran status, marital status, sexual orientation, or gender identification.

Inquiries may be made to the Affirmative Action Officer, Human Resources Office, Lowell Heiny Hall, Room 237.

Colorado Mesa University is a Drug-Free Workplace. All employees and students of the University agree to abide by the requirements in the Federal Drug-Free Workplace Act and the policies stated in the brochure entitled Drug-Free Schools, Campuses and Workplaces Drug Use and Alcohol Abuse Prevention Program. All employees and students are provided copies.

As required by the Campus Security Act, Colorado Mesa University publishes campus safety policies and statistics annually. Copies of the annual report are available on the Campus Security Reports page of the website.

FERPA Policy Statement

The Family Educational Rights and Privacy Act (FERPA) provides students who are enrolled in an institution of postsecondary education the right to inspect, review, and challenge their educational records. Colorado Mesa University has the responsibility of maintaining and protecting the confidentiality of students' official educational records. Colorado Mesa University also supervises the access to and/or release of educational records of its students.

FERPA covers enrolled and former students, including those who are deceased. Students who are not accepted to Colorado Mesa University, or if accepted, do not attend, have no rights under FERPA. In addition, the University will not release personally identifiable records of students to any individual, agency or organization without the prior written consent of the student, except as provided by FERPA. For further information related to FERPA, see the Registration section of this catalog.

Additional FERPA information is available on the Family Education Rights and Privacy page of the website.

Title IX Policy Statement

Colorado Mesa University does not discriminate on the basis of race, age, creed, color, religion, national origin or ancestry, sex, gender, disability, veteran status, genetic information, sexual orientation, gender identity or expression, and pregnancy. For more information, visit the Compliance Statement page of the website.

UNDERGRADUATE ADMISSION INFORMATION

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Undergraduate Admission Procedures for Degree-Seeking Students

How to Apply

To be considered for admission, undergraduate applicants must:

- Submit the Application for Undergraduate Admission.
  - Prospective students are strongly encouraged to submit applications online via Apply to CMU, or the Common Application.
- Pay the $40 non-refundable application fee or provide a fee waiver.

Applicants will be notified of their admission status by both mail and email once a complete application and all supporting documents are received.

Application Opening Dates

- Admission for Spring 2026: Opens April 1, 2025
- Admission for Summer 2026: Opens August 1, 2025
- Admission for Fall 2026: Opens August 1, 2025

Application Priority Deadlines

- Spring semester 2026: January 5, 2026
- Summer semester 2026: May 1, 2026
- Fall semester 2026: August 1, 2026

Merit Scholarship Deadlines

- Spring semester 2026: January 5, 2026
- Summer semester 2026: May 1, 2026
- Fall semester 2026: May 1, 2026

Supporting Documentation

Submit all appropriate supporting documentation to:

Colorado Mesa University
Admissions Office
1100 North Avenue
Grand Junction, CO 81501-3122

Letters of recommendation and a personal essay are optional and may be submitted to the Admissions Office.

For more information about admissions requirements and supporting documentation, please see the admissions information page most applicable to the student's application status:

- Admission of First-time Freshmen (p. 35)
- Admission of Transfer Students (p. 35)
- Admission of International Students (p. 36)
- Admission of Returning Students (p. 37)
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Home-schooled

Students should provide a transcript of all courses taken at the high school level. Contact the Admissions Office if you are in need of a transcript template. Students should submit transcripts of any courses taken at a traditional high school and may also submit a portfolio to describe their high school education.

Transfer

Students who intend to transfer to Colorado Mesa University should contact the Admissions Office for help with the admissions and evaluation processes. Transfer students may be admitted if they are in good standing at another regionally accredited college or university and have a total minimum cumulative grade point average (GPA) of 2.4 for 24 or more semester credit hours. In calculating the cumulative admission grade point average, Colorado Mesa University will compute a transfer GPA based on prior college transcript(s) including all courses attempted. If the student has attended more than one prior institution, the GPA of each is combined for a total cumulative admission GPA. For students seeking admission with fewer than 24 transfer credit hours, an admission decision will be based on the applicant's high school transcripts and HEAR recommendations as outlined in the HEAR section (p. 38) of this catalog.

Transfer applicants who are on probation or suspension from another college or university, or have a cumulative grade point average of less than 2.4, will be reviewed holistically.

An official evaluation of transfer courses is made once the student is fully admitted. Credit evaluations are completed in the Registrar's Office, with the assistance of Academic Department Heads.

See Admission of Transfer Students (p. 35) for more details.

Admission of First-time Freshmen

The table below provides guidance for first-time freshman applicants. To use these:

1. Select your applicant category in the far left row of the table.
2. Review the documentation requirements listed to the right of your applicant category. The row on the top indicates the documentation category, and the text in your applicant category row indicates whether or not these need to be submitted with your application.

If you are applying to transfer to CMU or CMU Tech, please instead refer to Admission of Transfer Students (p. 35) for applicable information. Additionally, applicants 23 years of age or older and/or who have been out of school for a minimum of five years and who are seeking undergraduate admission will not be held to the minimum first-time student and/or transfer student GPA admission standards. See details regarding admission of first-time adult students (p. 37).

Student Degree Intent	Official High School Transcript[1]	Standardized Test Scores[2]
Four-Year Degree-Seeking	Required; sent directly to university from high school.	Required; self-reported
Two-Year Degree-Seeking (AA, AS)	Required; sent directly to university from high school	Required; self-reported
Two-Year Degree-Seeking (AAS)	Required; sent directly to university from high school	Required; self-reported
Certificate-Seeking	Required; sent directly to university from high school	Required; self-reported
Non-Degree-Seeking	None[3]	Not considered

1 Preliminary transcript will be accepted until final transcript is submitted; also applies to home-schooled students.

2 Self-reported SAT or ACT results are required on the admissions application. They could be considered for admission purposes if a student's GPA is below a 3.0. They are not considered for merit scholarship purposes. SAT/ACT scores may be used for class placement purposes. Students may be asked to complete the ALEKS Assessment to assist in Math Placement. Students may contact the Testing Center at testing@coloradomesa.edu for further information.

3 Must become degree-seeking by no later than completion of 30 credit hours and complete high school diploma or GED.

Note: In addition to the requirements shown above, some academic programs have additional admission requirements. Admission to Colorado Mesa University or CMU Tech does not guarantee admission to those programs.

Admission of Transfer Students

The tables below provide guidance for transfer student applicants. To use these:

1. Select the table that applies to the number of college-level semester credit hours you have completed/attempted post high school graduation.
2. Select your applicant category in the top row of the table.

3. Review the documentation requirements listed below your applicant category. The row on the far left indicates the documentation category, and the text below your applicant category indicates whether or not these need to be submitted with your application.

Applicants 23 years of age or older and/or who have been out of school for a minimum of five years and who are seeking undergraduate admission will not be held to the minimum first-time student and/or transfer student GPA admission standards. See details regarding admission of adult students.

0-23 Credit Hours

Category	Four-Year Degree-Seeking	Two-Year Degree-Seeking (AA, AS)	Two-Year Degree-Seeking (AAS)	Certificate-Seeking	Non-Degree Seeking
Official High School Transcript	Required; sent directly to university from high school. High School grads >= Spring 2008 encouraged to meet HEAR recommendations [3]	Required; sent directly to university from high school	Required; sent directly to university from high school	Required; sent directly to university from high school	Not required [1]
Official College Transcript [2]	Required; sent directly to university from previously attended institution(s	Required; sent directly to university from all previously attended institution(s	Required; sent directly to university from all previously attended institution(s	Required; sent directly to university from all previously attended institution(s	Not required [1]
Standardized Test Scores	Required; self-reported. Not considered for admission [4]	Required; self-reported. Not considered for admission [4]	Required; self-reported. Not considered for admission [4]	Required; self-reported. Not considered for admission [4]	Not considered [1]

[1] Must become degree-seeking by no later than completion of 30 credit hours and complete high school diploma or GED.

[2] Must provide official transcript from every college/university attended, regardless of the type or amount of credit, academic status, or time elapsed since credit was earned. Failure to provide all college transcripts is grounds for rejection or dismissal.
Include transcripts of college courses completed while still in high school.

[3] CMU will review high school GPA and coursework along with transfer GPA and coursework for admission.

[4] SAT/ACT results may be used for class placement.

24+ Credit Hours

Category	Four-Year Degree-Seeking	Two-Year Degree-Seeking (AA, AS)	Two-Year Degree-Seeking (AAS)	Certificate-Seeking	Non-Degree Seeking
Official College Transcript [1]	Required; sent directly to university from previously attended institution(s)	Required; sent directly to university from previously attended institution(s)	Required; sent directly to university from previously attended institution(s)	Required; sent directly to university from previously attended institution(s)	Not required [2]
Transfer GPA	2.40	2.40	2.40	2.40	Not required [2]

[1] Include transcripts of college courses completed while still in high school.

[2] Must become degree-seeking by no later than completion of 30 credit hours.

Note: In addition to requirements shown above, some academic programs have additional admission requirements. Admission to Colorado Mesa University does not guarantee admission to those programs.

Admission of International Students

International Student Admission Requirements

To be considered for admission, students who have or will be seeking an F-1 international student visa must complete and submit the following items to the Colorado Mesa University International Student Admissions Office. Detailed requirements and forms are found on the International Admissions webpage.

1. International Student Application with $40 non-refundable application fee;
2. Proof of English proficiency (see next section for details);
3. Official secondary school transcript (transcripts not issued in English must be accompanied by official English translations);
4. Official transcript(s) from all colleges or universities attended, if applicable. To receive possible transfer credit submit an official copy of the foreign transcript(s) evaluation by a NACES-accredited company;
5. Copy of ACT or SAT scores (if taken);
6. For the Form I-20 to be issued, submit the CMU Notarized Statement(s) of Financial Support form and official bank statement(s) showing proof of funds;
7. For registration purposes, all international students are required to maintain health insurance. Students will be automatically enrolled in CMU's international student group insurance plan;
8. For registration purposes, all international students are required to comply with the Colorado law regarding the measles, mumps and rubella immunizations. A Colorado Mesa University official

immunization form must be completed and returned to the Registrar's Office.

Please note, students should apply by May 1 for fall semester and by October 1 for spring semester. Deadlines are subject to change.

English Proficiency Requirements

Prospective undergraduate international students who are seeking admission to Colorado Mesa University and whose primary language is not English must provide documented evidence of the ability to read, write, speak, and understand the English language at a high proficiency. This requirement may be fulfilled in one of the following ways:

1. Submission of TOEFL exam scores with a minimum average of 70 iBT/525 paper-based.
2. Submission of IELTS exam scores with a minimum of Band 6.
3. DuoLingo minimum score of 105.
4. Oxford ELLT minimum score of 6.
5. Enroll and successfully complete an approved intensive English program. A program must be pre-approved by the CMU International Student Admissions Office.
6. An international student who has been enrolled as a full-time student at a high school, college or university in the United States may request consideration of fulfillment of this requirement on an individual basis.
7. Other evidence will be considered on an individual basis.

Proof of Financial Funds

Before admission is granted, an international student must provide proof of financial ability to meet the estimated cost of tuition, fees, books, living accommodations, health insurance and incidental expenses for at least one full year. This is required to issue the Form I-20. Costs, additional information, and forms may be obtained from the International Admissions webpage.

International Transfer Students

International transfer students with college credit from an institution outside the United States must provide the appropriate official, professionally evaluated transcript from a NACES-approved company of courses (or grade reports, exam results, degree awards, etc., depending on the standard of the particular country) before transfer credit can be determined. Please see the International Admissions webpage for more information on approved foreign transcription evaluation options. In most cases, course descriptions or syllabi are required to determine content of individual courses. A professional evaluation of the foreign transcript is not required if a student is starting their studies from the beginning at CMU. In this case, the student should submit an official transcript(s) in English.

Admission of Returning Students

Returning students (any student who has previously attended Colorado Mesa University and has been out for at least two semesters; summer and January terms excluded) must submit an online application at Apply to CMU. If the student has attended another institution since last attending Colorado Mesa University, official transcripts of all course work must be sent directly to Colorado Mesa University, Registrar's Office, from each institution attended. Official transcripts must be submitted to continue enrollment at Colorado Mesa University. See "Applicable Catalog and Degree Requirements" in the Requirements for Degrees (p. 73) section to determine the catalog to be followed for graduation.

Students who are eligible to return after being on suspension must complete the Returning Student Application to be considered for re-admission. See the General Undergraduate Academic Policies (p. 66) section for more information on eligibility to return after academic suspension.

Admission of Adult Students

Applicants 23 years of age or older and/or who have been out of school for a minimum of five years and who are seeking undergraduate admission to Colorado Mesa University or CMU Tech will not be held to the minimum first-time student and/or transfer student GPA admission standards.

Transfer students shall be required to provide official transcripts from each college attended. First-time students and transfer students who have not completed 24 college-level semester credits shall provide an official high school transcript or GED test scores.

In the event an applicant cannot document that they have earned a high school diploma due to the closure of a private high school, then the institution will allow the following Conditional Admission by Exception.

Process:

1. When a student seeking enrollment cannot document having a high school diploma because of school closure, the applicant will sign a statement so stating. Admissions staff will confirm independently that the high school no longer exists.
2. Requirements for Conditional Admission by Exception:
   a. Complete Placement Examinations in Mathematics and English
      i. If test scores indicate college-level course placement, students may be fully admitted, enroll for a maximum of 12 credit hours in their first semester, and declare a major.
      ii. If test scores indicate developmental-level course placement, students must enroll in coursework to remedy any deficiencies in their first semester before and, based on successful completion of developmental courses, can then declare a major in their second semester.

Baccalaureate Admission Requirements

Full Admission

First-year students who are admitted to Colorado Mesa University's four-year division will be admitted based on their GPA, courses completed in high school with focus on HEAR recommendations, and any other supporting documents provided by the student such as letters of recommendation or SAT/ACT test scores. First-time students with a 3.0+ GPA are guaranteed admission, but enrollment in courses requires determining appropriate placement, which may be based on ACT, SAT, or IB test scores. If those scores are not available, students are required to take the ALEKS Assessment, which is available through the CMU Testing Center (testing@coloradomesa.edu).

Compass Program

First-year applicants with under a 3.0 GPA may be offered admission in the Compass Program. Supports through the Compass Program include

a College Success Skills course (UNIV 100), peer coaching, and one-on-one support with an IRIS Advisor. Students may progress to their program once they 1) complete 24 college-level credits at Colorado Mesa University, 2) earn a grade of C or higher in UNIV 100, 3) complete or are eligible to enroll in college-level English and math courses, and 4) earn a 2.0 cumulative grade point average.

Adult Students

Applicants 23 years of age or older and/or who have been out of school for a minimum of five years and who are seeking undergraduate admission will not be held to the minimum first-time student and/or transfer student GPA admission standards. See details regarding admission of adult students.

Admission to Specific Undergraduate Programs

Some baccalaureate, associate, and certificate programs may have specific entrance requirements in addition to general university admittance. Admission to Colorado Mesa University does not guarantee admission into an academic or technical program. More information is available in this catalog in the Areas of Study (p. 100) section. Prospective students should check with the department head of the specific academic program for special requirements.

Admission to CMU/CU-Boulder Engineering Partnership Program

Students enter CMU as "pre-engineering" majors. They may apply to the Civil, Electrical/Computer, or Mechanical Engineering Partnership Program:

- After one year at CMU if they have completed a two course sequence in calculus and a two course sequence in physical science with As or Bs and have an overall GPA of 3.0 or better, or
- After completing all required lower-division coursework at CMU with a GPA of 3.0 or better

Interested students can learn more about the program and admission options at CMU/CU-Boulder Engineering Partnership Programs.

Undergraduate Admission Procedures for Non-Degree Seeking Students

Students who do not wish to pursue a degree or certificate at Colorado Mesa University may apply as non-degree seeking rather than being formally admitted to the university. This includes students who wish to enroll in Colorado Mesa University courses while away from their "home" institution, such as during summer and January terms.

Policies and guidelines include:

1. Applicants must complete the Colorado Mesa University Application for Undergraduate Admission, selecting the non-degree seeking student type, and submit it along with a non-refundable $40 application fee.
2. Students who do not wish to pursue a degree or certificate are not required to submit high school or college transcripts.
3. Non-degree seeking students are not eligible for financial aid or scholarships and will not be assigned an advisor.
4. Non-degree seeking students are not eligible for campus housing.
5. Non-degree seeking students must consistently earn a minimum semester grade point average of 2.0 while enrolled at Colorado Mesa University.
6. Non-degree seeking students who earn 30 semester hours at Colorado Mesa University must apply for admission to Colorado Mesa University as a degree-seeking student in order to continue taking classes at Colorado Mesa University.
7. Degree-seeking students will have priority over non-degree seeking students regarding registration.
8. Non-degree seeking students are advised that courses taken during non-degree seeking status are counted against the state's current allowance of 145 semester credit hours through the College Opportunity Fund (COF).

Non-degree seeking students have not been formally admitted to Colorado Mesa University and are not guaranteed admission should they later make formal application as degree-seeking.

Once non-degree seeking students apply for degree-seeking status at Colorado Mesa University, the admission policies in effect at the time of formal application will be used to determine admissibility into the university and general and/or specific academic programs. This includes satisfying all requirements for admission as summarized in the admissions table found earlier in this section.

Colorado Public Higher Education Admission Recommendations (HEAR)

The admissions policy of the Colorado Department of Higher Education (CDHE) recommends the completion of a precollegiate curriculum for admission to a four-year Colorado public college or university for students graduating from high school beginning 2008.

Transfer applicants with fewer than 24 college-level semester credit hours and students transferring within the same institution must also demonstrate academic preparation comparable to HEAR if they graduated from high school in 2008 or later. Such preparation can be demonstrated by completing the pre-collegiate curriculum in high

school and/or by successfully completing (with a grade of C- or higher) a college-level course in each core area (English, mathematics, natural sciences, foreign language and social sciences) where the high school unit requirements have not been fulfilled.

For students who graduated in 2010, or later, high school course or unit recommendations include:

- Four years of English
- Four years of mathematics (algebra I or higher)
- Three years of natural science (two of which are lab-based)
- Three years of social studies (including one year of U.S. or world history)
- One year of world/foreign language
- Two years of academic electives

Additional details are available from the CDHE website.

Admission Decisions

Students who are academically prepared may be admitted to Colorado Mesa University or CMU Tech, according to the student's degree intent. Admission to the university, however, does not guarantee acceptance of a student into a specific course or academic program (i.e., admission to the university does not imply entry into any program which has selective admission standards). Some students may be required to enroll in special courses for correction of academic or other deficiencies before further consideration is given. Students may be asked to provide ACT/SAT scores or take an ALEKS test to assist with placement in coursework. To enroll in the ALEKS testing program, students my contact the Testing Center at testing@coloradomesa.edu.

Acceptance of Transfer and Alternative Credits

It is the policy of Colorado Mesa University to accept academic credits from:

- All public colleges and universities in the state of Colorado, provided they are currently regionally accredited. This applies regardless of the institution's accreditation status at the time the credit was earned.
- Private and out-of-state colleges and universities, provided the institution is currently regionally accredited and was accredited or was a candidate for accreditation at the time the credit was earned.
- Regionally accredited two-year community or junior colleges.
- Regionally accredited institutions that award "S" or "P" grades, if the granting institution states that such grade is equal to a grade of "C" or better.
- Regional accrediting bodies are:
  - Middle States Commission on Higher Education
  - New England Commission on Higher Education
  - Northwest Commission on Colleges and Universities
  - The Higher Learning Commission
  - North Central Association of Schools and Colleges
  - Southern Association of Colleges and School Commission on Colleges
  - WASC Senior College and University Commission
  - Accrediting Commission for Community and Junior Colleges, Western Association of Schools and Colleges
- GT Pathways, Colorado guaranteed general education transfer courses (see Catalog section on Colorado Department of Higher Education Statewide Guaranteed Transfer Courses (p. 83)).
- Colleges and universities outside of the United States, provided the institution maintains the equivalent of a regional accreditation and individual transcripts have been evaluated by World Education Services or another NACES-approved member.

To receive transfer credit, an official transcript must be sent directly from the institution that granted the credit to the Colorado Mesa University Admissions Office or Registrar's Office. Only courses with a grade of "C" or better are eligible to be applied toward a degree or certificate.

Colorado Mesa University reserves the right to evaluate, on a course-by-course basis, any credits earned 15 years or more prior to enrollment. Initially, only courses used to fulfill essential learning requirements will be accepted in transfer. Other courses will be transferred upon acceptance by the department head within the major. Additional transfer information is available on the Transferring Credit web page.

Alternative Credit

Alternative credit includes other methods, such as:

- Military Credit
- Advanced Placement (AP) and International Baccalaureate (IB) Exams
- College Level Examination Progam (CLEP) and Dantes (DSST) Exams
- Credit for Prior Learning Portfolio

For military credit and exams, an official transcript must be sent from the source directly to the CMU Registrar's Office.

More detail on the credit and credit guidelines can be found in the Undergraduate Academic Policies (p. 66) section under "Non-Traditional Credit" section.

Other Transfer Credit Policies:

Technical credits: refer to the requirements for the Bachelor of Applied Science degree under Requirements for Undergraduate Degrees and Certificates (p. 73).

Transfer of final credits for degree completion: refer to the section on Final Credit Requirements Taken at Another University under Requirements for Undergraduate Degrees and Certificates (p. 73).

Graduate credits: refer to the section on Transfer Credit under Graduate Programs (p. 85).

Immunization Policy for Measles, Mumps, and Rubella

Colorado State Immunization Law states that effective July 1, 1992, all college students born since January 1, 1957 must have two (2) measles, two (2) mumps, and two (2) rubella doses. If the student received a second measles dose prior to July 1, 1992, the second mumps and rubella are not required. The first measles, mumps and rubella (MMR) cannot be accepted if it was given more than four days before the first birthday. The second dose of MMR must be given at least 28 days after the first dose of MMR.

Written evidence of titers (blood tests) showing immunity to measles, mumps, and rubella is acceptable. If the student completes an exemption

form and an outbreak occurs, the student will be subject to exclusion from school.

Selective Service

Federal Law requires nearly all male US citizens and male immigrants, 18 through 25, to register with Selective Service. Before registering for classes at any state college or university in Colorado, male students under the age of 25 should go to the Selective Service website to learn more about the requirements and to register for selective service if applicable.

Veterans

Programs offered by Colorado Mesa University, with certain exceptions, are approved by the Community College and Occupational Education System for the education and training of those veterans and dependents of veterans eligible under applicable public laws.

A veteran or dependent should work with the CMU Veteran Services Office:

- to verify a program of study's eligibility for benefits prior to enrolling in the program.
- to complete the application process for veterans education benefits as soon as the decision to enroll is made. Each semester, the student must enroll in classes and submit all necessary documents. With advance application, the student may avoid needing to make other financial arrangements for payment of tuition and fees, books, supplies, and living expenses until VA funds are received.
- to determine the correct documentation to gain transfer credit for military experience for veterans.
- when the service member or reservist is unable to attend class or must suspend their studies due to service requirements in order to comply with 34 C.F.R. Section 668.18.

The evaluation of previous postsecondary education and training is mandatory and required for VA beneficiaries. For students utilizing Veterans benefits who are approved for transfer credit as a result of this evaluation, the institution will grant appropriate credit, reduce the program length proportionately, notify the student and Veterans Affairs in writing of this decision, and adjust invoicing of the VA accordingly.

Concurrently Enrolled High School Students

Currently enrolled high school students may register for college-level classes through six distinct programs as provided through the Concurrent Enrollment Act (CE).

Early Scholars Program

Through Colorado Mesa University and CMU Tech's Early Scholars Program, high school students may access college-level courses not replicated in the high school curriculum through enrollment on a Colorado Mesa University campus.

High School Scholars Program

College-level courses are taught at participating high schools by qualified and approved high school lecturers for academic programs at Colorado Mesa University.

Technical Scholars Program

Students enrolled in any of CMU Tech's Career and Technical Education (CTE) courses can earn both high school and college credit.

ASCENT Program

Students meeting program qualifications may apply to enroll through Colorado's ASCENT program if they have completed all high school graduation requirements, will have earned at least 9 college credit hours prior to high school completion, and agree to the special enrollment terms of the ASCENT Program. Students should work with their high school counselor to determine eligibility. All acceptance decisions are made by the student's school district and are subject to funding accommodations set by the state.

TREP

Students who are majoring in early childhood, elementary, or secondary education may be eligible through their high school to participate in the Teacher Recruitment Education Program (TREP). This program allows approved students to take up to two years of courses within an educator pathway tuition free (paid for by the student's school district). Students should work with their high school counselor to determine eligibility. All acceptance decisions are made by the student's school district and are subject to funding accommodations set by the state.

PTECH Program

Students enrolled in participating high schools may earn an Associate of Applied Science in a number of fields while they complete their high school graduation requirements. Students must apply and be accepted into the program through their high school. Students may take four, five, or six years (beginning at grade 9) to complete all their requirements.

Requirements to Participate

To participate in the Concurrent Enrollment Program, students must be currently enrolled in high school (public, private, or home-schooled) and meet the following in order to be considered:

1. Meet competency requirements for placement in the student's desired course;
2. Approval of high school official (not required if student is homeschooled and would be paying for courses out of pocket).

Note: Students may prove competency in Chemistry, Math, and/or English using test scores or previously earned college credit. Accepted standard test scores are from SAT, ACT, PSAT, Accuplacer, or other CMU approved placement methods (i.e. ALEKS math placement, Chemistry Placement Exam, etc.). CMU Tech Student Services or CMU Testing and Prometric Center may be consulted regarding acceptable placement testing.

In most cases, the school district will pay the tuition of the student to concurrently attend Colorado Mesa University or CMU Tech. Students (or parents or legal guardians if student is a minor) are typically responsible for payment of any fees, books (most Technical Scholar books are provided), and supplies. Students must apply as a concurrent student and be admitted by the CMU Tech Student Services Office.

Application Process

Early Scholars/High School Scholars Programs

All students wishing to enroll in the Early Scholars or High School Scholars programs must be enrolled in high school (or, if home-schooled,

be at the junior or senior level). Qualified students must complete and submit the Online Concurrent Enrollment Application and Concurrent Registration Form, as well as a current high school transcript, and appropriate test score reports. All Early Scholars or High School Scholars Program students must submit a Concurrent Registration Form each semester. This form requires completion by the student, lists the desired courses to be taken, and requires the high school official's approval. Early Scholars students (taking classes on one of Colorado Mesa University's campuses) must also submit proof of two (2) measles, mumps, and rubella vaccinations.

Technical Scholars Program

Students earn college credits through the Technical Scholars Program while enrolled in the CTE programs at CMU Tech. Students must complete and submit the Online Concurrent Enrollment Application and Concurrent Registration Form, as well as a current high school transcript. Students must register prior to the start of each semester using the Concurrent Registration Form.

ASCENT Program

ASCENT stands for Accelerating Students through Concurrent Enrollment. Students who have completed at least 9 credit hours of postsecondary courses prior to completion of their 12th grade year may be eligible for the ASCENT Program. They remain students in their Local Education Provider (LEP) for one year following their 12th grade year, and the LEP receives ASCENT specific per-pupil state funding that it uses to pay their college tuition. Students receive their high-school diplomas at the end of their ASCENT year.

The LEP will pay the tuition (up to the maximum provided by the Department of Education) for qualified ASCENT students; however, students are responsible for fees, books, supplies, as well as any tuition not covered by the LEP. Students must indicate their initial interest through their high school counselor in the fall semester (see school district for deadline and application). Qualified students must complete and submit the following to apply for the ASCENT program: Colorado Mesa University or CMU Tech application, ASCENT Agreement eForm, current high school transcript, official transcripts from all colleges attended, appropriate test score reports-including any from College Board, and FAFSA or CASFA as appropriate.

TREP Program

TREP stands for Teacher Recruitment Education Program. Students who have completed at least 3 credit hours of approved postsecondary courses prior to completion of their 12th grade year may be eligible for the TREP Program. They remain students in their Local Education Provider (LEP) for two years following their 12th grade year, and the LEP receives TREP specific per-pupil state funding that it uses to pay their college tuition. Students receive their high-school diplomas at the end of their TREP years.

The LEP will pay the tuition (up to the maximum provided by the Department of Education) for qualified TREP students; however, students are responsible for fees, books, supplies, as well as any tuition not covered by the LEP. Students must indicate their initial interest through their high school counselor in the fall semester (see school district for deadline and application). Qualified students must complete and submit the following to apply for the TREP program: Colorado Mesa University or CMU Tech application, TREP Agreement eForm, current high school transcript, official transcripts from all colleges attended, appropriate test score reports-including any from College Board, and FAFSA or CASFA as appropriate.

PTECH Program

PTECH stands for Pathways in Technology Early College High school. Students, approved for the program through their high school, have the opportunity to earn an AAS in a selected technical field while simultaneously completing their high school graduation requirements. Completion plans include four-, five-, and six-year options, and some programs may require summer semester participation. In addition to academics, PTECH students are matched with adult mentors currently working in the student's field of interest. Students who are interested in this pathway should speak with their middle or high school counselor to understand what opportunities are available.

Obligations for Concurrently Enrolled Students

1. Upon course registration, students may (or parents/legal guardians if student is a minor) incur a financial obligation to CMU.
2. Students participating in this program must apply for the College Opportunity Fund (COF) stipend. A student not registered for COF is responsible for payment of the COF stipend in addition to any additional outstanding tuition/fee charges.
3. Because concurrent students enroll in college-level course(s), participating students must meet the same course requirements as other university students.
4. Most courses taken satisfy university graduation requirements. Note that Activities (KINA) and advanced placement courses may not be eligible under the Early Scholars/High School Scholars program.
5. Online courses are subject to approval by the student's school district and require the student to complete a brief Introduction D2L course. Failure to successfully complete the D2L introduction will result in the student being auto dropped from the online class. Students who register for hybrid courses (part in-person and part online) are also responsible for completing the Introduction to D2L.
6. High school seniors may take developmental basic skills courses under the provisions of the Concurrent Enrollment program at the discretion of their district/school. Grades earned in the Concurrent Enrollment program are part of the student's permanent CMU record and will appear on their college transcript; this may affect future university admission and/or scholarship potential.
7. Course credits will transfer only if a student earns a C or better in the course.
8. Students who earn a grade of D, F, or W (Withdraw) in any CMU or CMU Tech course while enrolled in the Concurrent Enrollment program may be prohibited from enrolling in any additional courses, at the discretion of their high school district.
9. If students withdraw from a course after the add/drop date, they will receive a grade of W or F on their CMU transcript. See official university academic calendar for specific dates.
10. Students participating in this program are not eligible for the following: NCAA sports, and/or federal- or state-funded financial aid, including institutional scholarships funded with general fund dollars.
11. Registration in the Early Scholars/High School Scholars/Technical Scholars programs does not admit the student into a degree program.
12. Student should check with their local school district regarding specific eligibility and financial obligations.

13. ASCENT students will be admitted as college students for the fall semester, directly following their ASCENT year, without the requirement to re-apply. Students wishing to take college courses during the summer semester following their ASCENT year should work with their admissions counselor to move their start term.

Colorado Mesa University does not guarantee that the approved classes will be available upon registration. Before registering for a specific course, students must fulfill the prerequisites listed in the Colorado Mesa University catalog. Visit Concurrent Enrollment for more information.

Residency Status for Tuition Purposes

A student's tuition classification is governed by state law. For further information regarding tuition classification, please see the Expenses (p. 47) section of this catalog or contact the Tuition Classification Officer located in the Admissions Office at 970.248.1875 or residency@coloradomesa.edu.

Confirmation of Attendance

Incoming students will be sent information about their next steps after they receive their admission. Enrollment details include important dates, housing information, cost of attendance, financial aid, class registration, and campus arrival.

Undergraduate Admission Assessment and Counseling Tests

SAT or ACT

Self-reported SAT or ACT results are required on the admissions application. They could be considered for admission purposes if a student's GPA is below a 3.0. The are not considered for merit scholarship purposes. SAT or ACT scores may be used as an aid in course placement and for institutional research.

Prospective students are encouraged to take the SAT or ACT during their high school junior or senior year. Transfer students with fewer than 25 credit hours earned after high school are encouraged to have their SAT or ACT scores on file in the Admissions Office prior to registration.

Assessment and Evaluation After Enrollment

Students may be required to participate in testing and other programs necessary for placement, evaluation, and assessment purposes. Please see the Learning Progress Evaluation section under General Undergraduate Academic Policies (p. 66).

Acceleration of University Study

It is possible for students to satisfy requirements for baccalaureate degrees in less than the traditional four years (eight regular academic year semesters). Ways of accomplishing this include: enrolling in university classes while a junior or senior in high school; exceeding the normal course load at Colorado Mesa University or elsewhere; challenging by examination courses in which competence has previously been attained; earning credit by testing through the College Level Examination Program (CLEP), DANTES, and/or Advanced Placement; obtaining credit for prior learning (competency credit). Additional information may be obtained from IRIS, faculty advisors, or the Registrar's Office.

New Student Orientation

All new, degree-seeking undergraduate first-time and transfer students are required to submit a New Student Enrollment Form as the first step toward course registration. Students can find and submit their New Student Enrollment Form from their applicant portal. Students must be admitted in order to have access to the New Student Enrollment Form. For more information, call the Admissions Office at 970.248.1875.

First Time Students - After submission of the New Student Enrollment Form, first-time students will receive their course schedule from their Academic Advisor. Submitting test scores (ACT, SAT, or IB) allows for placement into courses that are required for degree or program completion. If these scores are unavailable, students will be required to complete the ALEKS Assessment. For more information on the ALEKS Assessment, please contact the Testing Center at testing@coloradomesa.edu.

Transfer Students - After submission of the New Student Enrollment Form, transfer students may self-register for courses, sign up with an Academic Advisor once their registration window opens, or request to have their schedule built by their Academic Advisor.

New Mav Days is the official welcome to campus for incoming students. For fall start students, it occurs the Friday and Saturday prior to the start of the semester. For spring start students, it occurs the Saturday prior to the start of the semester. All new students are required to attend New Mav Days.

Additional information regarding new student registration and orientation will be communicated to students upon notification of admission and also can be found on the Colorado Mesa University Orientation website and Next Step website.

Stampede Welcome Week

Welcome Week is an opening week program for all students hosted by our Programming Activities Council (PAC). Activities begin the first day of school and carry on throughout the whole week during both the fall and spring semesters.

New students to Colorado Mesa University are strongly encouraged to participate in the programs offered in order to meet fellow classmates and learn about the University's programs and facilities. Visit the Welcome Week website for schedules and information.

Early Start Programs

The transition from high school to college is a major step. CMU's Early Start Program (ESP) is designed to give first-time traditional students valuable knowledge about their university journey. Taught by CMU faculty, the Early Start Program provides students with a better understanding of the skills needed to be successful in college, such as study skills, test-taking strategies, and time management techniques. Take advantage of this opportunity to meet your Mavily and learn how to navigate campus before the semester starts. Participants will earn two credit hours by completing the UNIV 101 course. For more information, visit the Early Start website.

Students pursuing programs in business, health sciences, or engineering may choose to do an Early Start option specific to their academic discipline: Business Early Start (BUGB 196), Health Sciences Early Start (HSCI 196), and Engineering Early Start (ENGR 101). These courses are valued at one credit hour.

Students participating in the Compass Program who choose not to participate in the Early Start Program will complete the UNIV 100 course during their first semester at CMU. For more information, contact IRIS.

SCHOLARSHIPS AND FINANCIAL AID

Overview

Financial aid at Colorado Mesa University consists of a balanced program of self-help, scholarships, and grants-in-aid awarded for outstanding academic achievement or outstanding performance in special skill areas including vocational skills, athletics, drama, music, etc. Colorado Mesa University also participates in federal and state programs of grants, loans, and student employment, the awarding of which is based primarily on need as determined by a need analysis system approved by the federal government. The application used to determine need is the Free Application for Federal Student Aid (FAFSA) or Colorado Application for State Financial Aid for ASSET for designated students.

Financial aid awards that are based on the need analysis system consider family resources as the primary source of funding for education, with federal and state sources considered secondary and supplemental. Because prospective students always apply for more financial aid than there is money available, the following priority order is used:

1. As stated in federal law, a parent is primarily responsible for payment of educational expenses of a dependent child. Thus, parents of students attending college are expected to make every effort to assist the student financially.
2. The student, as the benefactor of the educational experience, is the next most responsible person for payment of educational expenses.
3. The third level of responsibility is from outside sources such as communities, clubs, corporations, etc.
4. The final level is federal and state financial aid programs. There has never been enough funding to assist all students with need. Therefore, students should make every effort to obtain assistance at one of the three levels listed above.

Accurate and timely information from the student and parents to the Financial Aid Office is the responsibility of the student. Failure on the part of the student to supply accurate information on the application may result in reduction or total loss of aid.

Contact Information

Financial Aid Office
Lowell Heiny Hall, First Floor
Call toll free 800.982.6372 or 970.248.1396
financialaid@coloradomesa.edu

General Guidelines

Financial Aid is determined based on financial need for educational expenses and is an essential requirement to qualify for assistance from most programs. All levels of enrollment will receive consideration.

Since financial need is the primary requirement for determining eligibility for assistance under any of the federal student aid programs, Colorado Mesa University requires that the student applicant submit the FAFSA to the federal processor as soon as possible after October 1. The application is available on the FAFSA website. Once your application is submitted the Office of Financial Aid may request additional documentation to complete your application. View details on your MAVzone.

ASSET (Colorado Advancing Students for a Stronger Economy Tomorrow) designated students may be eligible for state student aid programs. Colorado Mesa University encourages the completion of the Colorado Application for State Financial Aid (CASFA) for all ASSET designated students as soon as possible after October 1. The application is available on the CASFA website. Once your application is submitted, the Office of Financial Aid may request additional documentation to complete your application. View details on your MAVzone.

Financial Aid eligibility and CMU rules are outlined in the annual Financial Aid Terms & Conditions located on the Financial Aid Forms website. It is updated annually.

Federal Direct Loans are initiated with the FAFSA application but require that a Master Promissory Note/Loan Agreement and Entrance Loan Counseling be completed for first-time borrowers at Colorado Mesa University. Electronic links for these processes are found at Financial Aid Links.

Students must maintain satisfactory academic progress as noted with the terms and conditions of financial aid to remain eligible for financial aid.

Scholarships

Scholarships represent an effort by the State of Colorado and Colorado Mesa University to recognize resident and non-resident students for outstanding achievement in academic and talent areas. Although need is not always a factor in determining recipients, students who are awarded a scholarship are also encouraged to submit a financial aid application.

After students have been admitted to Colorado Mesa University, they will automatically be reviewed for academic scholarship awarding. For more detailed information on academic scholarships, please visit the Financial Aid web page or call either the Admissions Office at 970.248.1875 or the Financial Aid Office at 970.248.1396. For detailed information regarding talent scholarships, please contact the appropriate academic department or look for the Scholarship Application on your MAVzone.

Colorado Student Aid Programs

Programs are available to full-time, half-time and less-than-half-time students with priority given to full-time students.

Colorado Grants

Grants are awarded to Colorado resident students on the basis of documented financial need. Financial aid packages which include Colorado Grants may not exceed the documented financial need of the student.

Colorado Work-Study

The Work-Study program is designed to provide employment on campus for students with documented need and who meet the residency requirement for tuition purposes.

Colorado Graduate Grant

The Graduate Grants are awarded to Colorado resident students on the basis of documented financial need and enrolled in a graduate program allowable to receive the funds. Financial aid packages which include Colorado Grants may not exceed the documented financial need of the student.

Colorado Technical Education Grant

The Technical Education Grants are awarded to Colorado resident students on the basis of documented financial need and enrolled in a certificate of technical education program. Financial aid packages which include Colorado Grants may not exceed the documented financial need of the student.

CMU Foundation

The Colorado Mesa University Foundation was established in 1961 to solicit and receive charitable gifts for the institution. Today, the Foundation has established an endowment of more than $60 million. It has over 400 named foundation scholarships which provide more than $5 million in financial aid to CMU students every year.

The CMU Foundation is a non-profit organization guided by an advisory Board of Directors. The board is comprised of talented and successful business and community leaders who recognize the University's pivotal role in the future of our state and wish to aid deserving students at Colorado Mesa University. This group, which functions independently of the University, raises funds for scholarships. The organization is also active in raising substantial gifts to support academic programs and capital expansion. Foundation leadership works closely with the University President to help address the institution's advancement priorities. The CMU Foundation serves as a charitable non-profit organization under Internal Revenue Service 501 (c) (3) designation, and retains fiduciary responsibility for the investment of the funds entrusted to it. Visit Supporting CMU for more information.

Foundation Scholarships

In addition to institutional scholarships, many scholarships and awards have been established for students of the University through philanthropic gifts from individuals and organizations who recognize the importance of Colorado Mesa University. The amounts of the awards vary, but all are designed to apply toward tuition and fees. Visit CMU and Donor Scholarships to apply or contact the Financial Aid office for more information.

Federal Student Aid Programs

Federal Pell Grant Program

This is a federally funded grant program available to students based on financial need, eligibility, and the number of credit hours enrolled at an eligible institution of post-secondary education.

College Based Programs

Colorado Mesa University participates in many other federal need-based student-aid programs. These include the following:

1. Federal Supplemental Educational Opportunity Grant Program
2. Federal Work Study Program

Funding is awarded per federal guidelines and on a first-come, first-served basis.

Federal Direct Loan Program

This is a loan program consisting of the Federal subsidized and unsubsidized Direct Loan Program and the Federal Direct Parent Loan for Undergraduate Students (PLUS), and the Federal Graduate PLUS Loan.

Details concerning these programs may be obtained on the Financial Aid website.

Western Undergraduate Exchange (WUE)

The Western Undergraduate Exchange (WUE) tuition program allows students from 14 western states to attend Colorado Mesa University by paying 150% of the cost of in-state tuition instead of out-of-state tuition. Students who are residents from the states of Alaska, Arizona, California, Hawaii, Idaho, Montana, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington, and Wyoming as well as the territories of Guam, American Samoa, and Northern Mariana Islands are considered for the award; however, acceptance into WUE is not guaranteed. To be considered students must submit a completed CMU application and all required official transcripts. Students with a minimum GPA of 2.5 and a permanent address in one of the WUE qualifying states will be notified of their WUE status on their acceptance letter.

All undergraduate degree programs are open to WUE students. New freshman or transfer students (24–105 credits) enrolling for the first time at CMU are eligible for WUE consideration. Currently enrolled students cannot be considered for WUE after enrollment at CMU. Returning students (those sitting out one or more semesters) will be considered on an individual basis. Students with a prior bachelor's degree are ineligible. Through acceptance of the special WUE tuition classification, students acknowledge their intent to maintain their legal domicile in their home state at the time of application. If students desire to change their legal domicile to any other state, including Colorado, they must provide written notification to the Tuition Classification Officer in the Admissions Office. At that time a student may be changed to out-of-state for tuition purposes. Please note that time accrued while participating in the WUE tuition program cannot be used to establish domiciliary intent for purposes of claiming Colorado residency. To maintain WUE program status, students must:

1. be a U.S. citizen or permanent resident of the U.S.;
2. be enrolled in consecutive fall and spring terms registering in a minimum of 12 credits each semester. Summer term requires six credit hours;
3. maintain a minimum 2.5 CMU GPA each academic year; and
4. remain a permanent resident of your home WUE state (maintaining your home state driver's license will be required).

For more information please contact the Admissions Office at 970.248.1875 or residency@coloradomesa.edu.

Mountains and Plains (M&P)

The Mountains and Plains (M&P) tuition program allows students from nineteen states to attend Colorado Mesa University by paying 150% of the cost of in-state tuition instead of out-of-state tuition. Students who are residents from the states of District of Columbia, Delaware, Illinois, Indiana, Iowa, Kansas, Maryland, Michigan, Minnesota, Missouri, Nebraska, Ohio, New Jersey, New York, Oklahoma, Pennsylvania, Texas, Virginia, and Wisconsin are considered for the classification; however, acceptance into M&P is not guaranteed. To be considered students must submit a completed CMU application with all required transcripts and/or test scores. Shortly after admission, students with a minimum GPA of 2.5 and a permanent address in one of the M&P qualifying states will be notified of their M&P status.

All undergraduate degree programs are open to M&P students. New freshman or transfer students (24–105 credits) enrolling for the first time at CMU are eligible for M&P consideration. Currently enrolled students cannot be considered for M&P after enrollment at CMU. Returning students (those sitting out one or more semesters) will be considered on an individual basis. Students with a prior bachelor's degree are ineligible. Through acceptance of the special M&P tuition classification, students acknowledge their intent to maintain their legal domicile in their home state at the time of application. If students desire to change their legal domicile to any other state, including Colorado, they must notify the Tuition Classification Officer in the Admissions Office. At that time a student may be changed to out-of-state for tuition purposes. Please note that time accrued while participating in the M&P tuition program cannot be used to establish domiciliary intent for purposes of claiming Colorado residency. To maintain M&P program status, students must:

1. be a U.S. citizen or permanent resident of the U.S.;
2. be enrolled in consecutive fall and spring terms registering in a minimum of 12 credits each semester. Summer term requires six credit hours;
3. maintain a minimum 2.5 CMU GPA each academic year; and
4. remain a permanent resident of your home M&P state (maintaining your home state driver's license will be required).

For more information please contact the Admissions Office at 970.248.1875 or residency@coloradomesa.edu.

TUITION, FEES, RESIDENCE LIFE, AND STUDENT ACCOUNTS

Colorado Mesa University reserves the right to adjust any and all charges, including tuition, fees, and room and board, at any time deemed necessary by the Board of Trustees.

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- Tuition and Fees (p. 47)
- Other Fees and Expenses (p. 47)
- Tuition and Fee Schedule (p. 48)
- College Opportunity Fund (p. 49)
- Residence Life and Dining (p. 49)
- Residency Status (p. 51)
- Campus Payment Plan (p. 54)
- Residency Petition Deadlines (p. 54)

Tuition and Fees

Tuition and fees for the 2025-2026 academic year are current as of the time that this catalog was published. Students should check the University's website for the most current rates and information. Note that summer term pre-registration is held at the same time as pre-registration for fall term and follows a separate policy regarding refunds.

Student Liability for Tuition and Fees

As agreed upon in the Student Financial Responsibility Agreement upon registration, students (or parents or legal guardian if student is a minor) incur a financial obligation to Colorado Mesa University. Anyone who registers for one or more classes is expected to pay the full amount of tuition and fees, unless they officially withdraw by the specified deadlines listed on the Important Dates web page. Students are responsible for payment of all incurred charges on student accounts. All charges are due and payable on the first day of class.

A 1% service charge will be assessed each month on all outstanding balances. All accounts are subject to a one-time 25% late fee up to $100.00 in addition to service charges. No student will be allowed to register for classes, graduate or receive transcripts until their account is paid in full.

Students are liable for additional late fees and/or collection fees and costs, including attorney fees and other charges necessary for the collection of any overdue financial obligation incurred by the student.

Student financial information is available on the Colorado Mesa University website. If you have any questions, contact IRIS at 970.248.1177.

Note: Students should consult the Financial Aid Office regarding the eligibility of undergraduate and graduate certificates for financial aid funding.

Refunds and Tuition Adjustments for Course Changes

Once the term starts, the student is liable for tuition and course fees on any registered course regardless of attendance. It is the student's responsibility to seek guidance on how a change to their course schedule affects Financial Aid disbursements prior to making any changes.

To qualify for a full refund of tuition and course fees, the student must complete a Semester Withdraw request by the end of the second day of the term for 8-16 week courses or by the end of the first day of the term for all courses less than eight weeks. Following the applicable 1-2 day grace period up to the course drop dates, a Semester Withdraw request reverses tuition and course fees for all dropped courses except a $225 partial tuition assessment. After the drop deadline, withdrawing from classes does not adjust tuition and course fees.

Students who stay registered for at least one class may add and drop courses within the published deadlines and will result in adjustments to tuition and fees to reflect the student's updated course schedule. After the drop deadline, withdrawing from a class does not adjust tuition and course fees.

Students must officially add, drop, or withdraw from courses as noted in the Registration Policies (p. 63) section in this catalog and by the registration dates published on the Important Dates page.

Student Financial Counseling

If students need assistance with payment arrangements, financial planning, and financial management, please contact IRIS at 970.248.1177, Lowell Heiny Hall 1st Floor.

Other Fees and Expenses

Books and Supplies

Course materials and supplies are sold at The Maverick Store, Colorado Mesa University's Bookstore and Fan Shop, located in the University Center and online at www.themaverickstore.com. Other items sold at the store include general books, art supplies, basic school supplies, calculators, imprinted clothing, backpacks, computers, and gift items.

The Maverick Store offers course materials in a variety of formats, including new texts, used texts, rentals and digital materials or e-books. Numerous courses use Direct Digital - a technology driven approach to learning materials that automatically delivers books to a student's personal online platform. Not only are materials digitally delivered on the first day of class, they appear on a student's account without any additional efforts or hassle. Not all titles will be available in all formats, but many titles are available in multiple formats. Prices will vary depending on format. The estimated cost of course materials is $125-$150 per course. Supply costs vary depending upon student preference and course requirements.

The Maverick Store buys select titles during buyback events held through finals week of fall and spring semesters.

Students may charge store purchases to their student account via the MAVcharge program. This program is available for a limited time at the start of each semester, and credit limits are based on enrollment status. Students receive $100 per credit hour, to a maximum of $1200 per semester.

General store information, details on programs, payment options and other information is listed on the store website.

Application, Evaluation, and Other Charges

Non-Refundable Fees:

Fee or Charge	Amount
Undergraduate Application	$40.00
Graduate Application	$50.00
Matriculation Fee	$140.00
Housing Application Fee	$50.00

Other Charges:

Fee or Charge	Amount
Housing Pre-payment	$150.00
Activity Fee	$60.00
Orientation Fee	$90.00

Parking Permits:

Fee or Charge	Amount
Commuter	$170.00
Online Day Permits	$7.00
Faculty/Staff	$170.00
Motorcycle	$42.00
Pay Lots	$2.35/hour
Reserved	$378.00
Residence Hall	$206.00
Reserved Residence Hall	$304.00
Value Lots	$78.00

Permits are valid for a full academic year.

Course-Specific Fees

When private and special instructional services are required, additional charges will be incurred by the student. Fees vary with the nature of the instruction. Private instruction in applied music is available from instructors approved by the university. Cost of this instruction is regular per credit hour tuition plus a specified amount for one thirty-minute lesson each week. Other special instructional services and courses that may require students to pay extra fees include: labs, program-specific fees, courses with transportation fees for field trips, and kinesiology courses such as skiing and snowboarding.

Personal Technology Recommendations

Colorado Mesa University recognizes the importance of computers as educational tools in the pursuit of higher education. Students are strongly encouraged, to the extent possible, to have a personal computer for their use while attending Colorado Mesa University. Wireless connectivity is available throughout the campus in all buildings, classrooms, and common areas. Wired and wireless access to the Internet is available in all residence halls.

Students who will be purchasing a personal computer, and peripherals, should consider the following recommendations:

Hardware: computers with higher processing power and greater quantities of RAM will improve performance and extend the usable life of the system. Students majoring in computer intensive academic programs of study, such as Mass Communication, Graphic Design, Engineering, and others, are encouraged to consult with their department before purchasing a computer. These types of academic programs may require computers with higher end specifications to support the software used.

Desktop versus laptop/tablet: portability and wireless connectivity have made laptops the preferred choice by most students. CMU recommends students bring a laptop to support study habits in and outside of the classroom.

Printers: for black and white printing, laser printers are more cost effective compared to ink-jet printers in terms of the per page cost to print. Generally, ink jet printers are an acceptable choice for low volume color printing. Printers that connect via USB are the best option, as WiFi-only printers are not always compatible with the University's network. Students should also be aware of MAVPrint, CMU's campus printing system. This system provides printing in residence hall labs, computer labs, and the Library using campus computers. Personal printers should only be considered as a convenience.

Software: students may be required to purchase specific software for specific courses. In some cases, students will purchase software along with the textbook used for a given class at a nominal cost. Students should not purchase software until advised by instructors. CMU provides students free access to Microsoft 365 applications. Be sure to visit our ***Getting Started: Students: Technology to Bring*** page for more specific information.

Consumer Technology Devices: also, please visit our ***Getting Started: Students: Technology to Bring*** page for more specific information regarding the use of consumer technology devices such as smartphones, gaming consoles, media streaming devices, televisions, and other devices that frequently require WiFi access.

Matriculation Fee for New Undergraduate, Transfer, and Graduate Students

A $140 matriculation fee will be assessed the first semester the student is enrolled at the undergraduate level and at the graduate level unless the student is accepted as non-degree seeking at Colorado Mesa University. This is in addition to the published tuition and fees for the courses. The matriculation fee covers add/drop, career placement, credential (resume) services, graduation (petition) and transcripts.

Tuition and Fee Schedule

The tuition rates and student fees shown below are for the catalog year; all rates are subject to change by the University's Board of Trustees. Rates can be found online at the Office of Student Accounts website.

A one-time matriculation fee of $140.00 will be assessed to all students. This fee takes the place of add/drop, transcript, graduation, and other fees.

For financial aid purposes, twelve (12) credit hours per semester is considered full-time status. Note, the College Opportunity Fund (COF) amounts listed below are subject to change by action of the Colorado General Assembly.

Examples:

1. Undergraduate who is full-time, in-state, and COF-eligible.

Per Semester

Description	Cost
Total tuition for 12 credit hours	$5,298.36
Less COF (state's share of tuition)	-$1,392.00
Equals student's share of tuition	$3,906.36
Plus general purpose student fees	+$489.60
Equals total due from student	$4,395.96

2. Undergraduate CMU Tech Career & Technical Education (CTE) who is full-time, in-state, and COF-eligible.
(Note: Not all CMU Tech Programs qualify for the CTE rate).
Per Semester

Description	Cost
Total tuition for 12 credit hours	$3,510.36
Less COF (state's share of tuition)	-$1,392.00
Equals student's share of tuition	$2,118.36
Plus general purpose student fees	+$489.60
Equals total due from student	$2,607.96

3. Undergraduate who is full-time, out-of-state, and non-COF-eligible.
Per Semester

Description	Cost
Total tuition for 12 credit hours	$10,647.60
Plus general purpose student fees	+$489.60
Equals total due from student	$11,137.20

4. Undergraduate who is part-time, in-state, and COF-eligible.
Per Credit Hour

Description	Cost
Tuition per credit hour	$441.53
Less COF per credit hour (state's share of tuition)	-$116.00
Equals student's share of tuition	$325.53
Plus general purpose student fees	$40.80
Equals total due from student per credit hour	$366.33

5. Undergraduate CMU Tech Career & Technical Education (CTE) who is part-time, in-state, and COF eligible.
(Note: Not all CMU Tech Programs qualify for the CTE rate).
Per Credit Hour

Description	Cost
Tuition per credit hour	$292.53
Less COF per credit hour (state's share of tuition)	-$116.00
Equals student's share of tuition	$176.53
Plus general purpose student fees	$40.80
Equals total due from student per credit hour	$217.33

6. Undergraduate who is part-time, out-of-state, and non-COF-eligible
Per Credit Hour

Description	Cost
Tuition per credit hour	$887.30
Plus general purpose student fees	+$40.80
Equals total due from student per credit hour	$928.10

7. Graduate tuition varies by discipline. Visit Office of Student Accounts for current tuition and fee rates.

College Opportunity Fund

The State of Colorado allocates money for Colorado in-state undergraduates to help offset the total tuition of their college education. The state's share of in-state tuition—paid from the College Opportunity Fund (COF)—is available for students once the student signs up for a COF voucher account and authorizes their Colorado Mesa University registration. The funds for the COF voucher will be sent directly to the institution. Students are then responsible only for their remaining share of total tuition.

Most in-state undergraduates qualify for participation in the program. Qualifications and the amount of the voucher are subject to actions by the Colorado General Assembly. Additional details are available on the Colorado Mesa University's College Opportunity Fund website.

To create a COF voucher account, a student must register at cof.college-assist.org and provide a limited amount of information. Note that the process of creating a voucher account is separate from applying for admission to Colorado Mesa University and can be completed at any time prior to enrolling. Qualifying students who do not establish an account into which the voucher can be deposited are responsible for both the state's and the student's share of tuition.

Residence Life and Dining

On-campus living offers many advantages and choices. The location makes class attendance and activity participation very convenient for Colorado Mesa students. In addition, living on campus relieves the students of many time-consuming responsibilities that enable them to devote more energy to their studies, recreational activities, and making new friends. The many living options we offer help create different opportunities and experiences for you, the student. First and second year students are required to live on campus, with few exceptions.

Each residence hall is staffed with an Area Coordinator or Residence Hall Coordinator, as well as Resident Assistants who are trained to help students. Staff members support the educational mission of the University by helping residents adjust to college life, offering social and educational activities, explaining policies, answering questions, and acting as resources.

Residence Hall Choices

There are several choices of on-campus housing available:

1. Five traditional residence halls which require a meal plan (most rooms are designed for double occupancy, although there are a limited number of single rooms).
2. Two semi-suite style residence halls with 4 students per suite that share one bathroom. These halls require a meal plan.

3. Two suite style residence halls that house 4-9 students, in a mixture of single, super single and double bedrooms—along with sharing two bathrooms and a living area. These halls require a meal plan.
4. Three apartment complexes, available for sophomores, juniors, and seniors. This gives you the true apartment feel, while being on campus and close to everything at Colorado Mesa University.
5. Two modified apartment complexes of all single rooms in pods of four. Each pod has a mini kitchen and each floor has 1-2 common kitchens. Both halls are available for sophomores, juniors, and seniors. This residence hall requires a modified meal plan (7 meals a week), which is included in the price of the room.

Residence Hall and Dining Contract

Students applying for accommodations on campus are required to submit a $150 prepayment and $50 application processing fee with their signed contract and completed application. On-campus housing is not guaranteed, as availability is limited to approximately 3,052 students. Fall housing applicants will select their housing assignments within the Maverick Housing portal. As part of the process, they have the opportunity to select roommates based on personal preferences or by using a short matching quiz.

The Residence Hall and Dining Contract is a legal agreement between the student and Colorado Mesa University regarding housing and meal plans on campus. The contract is in effect for the entire time with Residence Life (generally, a two year span). These services, however, are billed and payable by semester. The schedule for room and meal plan refunds is outlined in the contract.

Residence Requirement

Colorado Mesa University is committed to the success of our students. Knowing that students who live on campus and engage in activities have a greater success rate for graduation and maintain higher GPA's, CMU requires students who have earned less than 60 credit hours and are under the legal drinking age to live on campus, subject to room availability and unless approved for an exemption.

Students who have more than 60 credit hours and of the legal drinking age may - but are not required to - submit a Housing Application to live on campus.

Exemptions will be granted for the following reasons.

1. Resides with parent(s) at their permanent address within Mesa County
2. Will be the legal drinking age or older before first day of semester in which the exemption is requested; *see* § 18-13-122(3)(a), C.R.S
3. Earned 60 or more credit hours
4. Lived in CMU housing for four semesters
5. Married or have a dependent child
6. Attending only Montrose campus or taking only online classes
7. Extreme Financial Hardship
    - For an exemption to be granted based on Extreme Financial Hardship, a student is required to complete a Free Application for Federal Student Aid (FAFSA) for the year in which they are requesting an exemption. Residence Life in conjunction with Financial Aid will use unmet need and Expected Family Contribution to determine if you qualify for this exemption.

You may NOT request an exemption based solely on the fact that you have found a less expensive off-campus option or because you have signed a lease.

Questions concerning on-campus housing should be directed to Residence Life at 970.248.1536 or email reslife@coloradomesa.edu.

Off-Campus Housing

The university and Residence Life do not manage off-campus housing placements but attempts to assist students in locating housing. Students seeking off-campus living can explore listings through Off Campus Partners, an excellent resource for finding available rentals and connecting with potential roommates.

Campus Dining

Campus Dining Services offers food service to students at Colorado Mesa University which includes a choice of three meal plans:

Plan	Service
The Unlimited	Unlimited meals in The Caf with $500 in MAVmoney that can be used at several restaurants around campus
The 17	17 meals per week in The Caf with $600 in MAVmoney that can be used at several restaurants around campus
The 14	14 meals per week in The Caf with $700 in MAVmoney that can be used at several restaurants around campus

Multiple entrees are served in The Caf with unlimited seconds. Weekday breakfast starts at 6:45am. Only two meal periods are available on Saturday and Sunday (brunch and dinner). All meal plans have full access to brunch and dinner 10:30am to 1:30pm and 5:00pm to 8:00pm. Meals for students living in Aspen and Wingate Apartments are accessible any time during operating hours. Menus are planned with special needs in mind with our Simple Servings, Vegan, and Healthy Choices sections. The General Manager and Executive Chef encourage students with special dietary needs or requests to meet with them to help plan healthy alternatives. This is at no additional costs to the student.

Students living in traditional residence hall rooms, semi-suites, or suites are required to select a meal plan. Students living in on-campus apartments or living off-campus may purchase meal plans and/or MAVmoney. Meals are served seven days per week during the academic year with limited meals during short breaks. Commuter students are welcome to purchase any of the resident student meal plans, or try one of our commuter plans. Call or visit the MAVcard Office (970.248.1059) for more information on dining services.

Room and Board Charges

All rates listed below are for the Fall 2025 semester, per student. A $30 per semester charge will be added to all residents' accounts for a non-refundable activity fee.

Room and Apartment Rates

Meal plan required for all rooms and apartments unless otherwise noted.

Aspen Apartments:

Room or Apartment Type	Rate
Apartment Single room which includes 7 meals per week	$6,540.00

Bunting Hall (semi-suite):

Room or Apartment Type	Rate
Lofted Double	$3,600.00
Double room	$3,875.00
Single room	$4,850.00

Garfield Hall (traditional):

Room or Apartment Type	Rate
Double room	$3,175.00

Grand Mesa Hall (suite):

Room or Apartment Type	Rate
Double room	$4,125.00
Single room	$5,100.00
Super single	$5,380.00

Monument Hall (semi-suite):

Room or Apartment Type	Rate
Double suite	$3,655.00

Lucero Hall:

Room or Apartment Type	Rate
Suite, double room	$4,125.00
Suite, single room	$5,100.00
Apartment, double[1]	$4,235.00
Apartment, single[1]	$5,405.00

[1] Meal plan optional

Orchard Avenue Apartments:

Room or Apartment Type	Rate
Double room[1]	$4,235.00
Single room[1]	$5,405.00

[1] Meal plan optional

Piñon Hall (traditional):

Room or Apartment Type	Rate
Double room	$3,175.00
Single room	$4,010.00

Rait Hall (traditional):

Room or Apartment Type	Rate
Double room	$2,335.00
Single room	$3,480.00

Tolman Hall (traditional):

Room or Apartment Type	Rate
Double room	$2,335.00
Single room	$3,480.00

Walnut Ridge Apartments:

Room or Apartment Type	Rate
Double room[1]	$3,480.00
Single room[1]	$4,205.00

[1] Meal plan optional

Wingate Hall:

Room or Apartment Type	Rate
Traditional Double room	$3,480.00
Apartment Single room which includes 7 meals per week	$6,540.00

Meal Plans

All rates are per semester. Meal plans are available to all students and are mandatory for those living in a traditional or suite-style residence hall. For students living in Aspen and Wingate Apartments, the room rate includes 7 meals per week.

Plan	Service
The Unlimited	Unlimited Dining Hall meals plus $500 MAVMoney, $3,187.50
The 17	17 Dining Hall meals per week plus $600 MAVMoney, $3,114.50
The 14	14 Dining Hall meals per week plus $700 MAVMoney, $2,968.00
Aspen/Wingate	7 Dining Hall meals per week, $0 MavMoney, $1,485.00

Contact Information

Communication Type	Contact Information
Mail	Residence Life, Colorado Mesa University, 1100 North Avenue, Grand Junction, CO 81501
Phone	970.248.1536
Fax	970.248.1979
Email	reslife@coloradomesa.edu
Web	http://coloradomesa.edu/residence-life

Residency Status

Determination of Residency Status for Tuition Purposes

Tuition classification is governed by state law (Colorado Revised Statutes, Sections 23-7-101 to 104 and 23-7-105 to 113) and by judicial decisions that apply to all public institutions of higher education in Colorado. Colorado Mesa University does not have the discretion to make exceptions to state law. Although an individual may be considered a state resident for voting and other legal purposes after being in the state for a

short period of time, the tuition law specifies additional requirements for classification as "in-state" for tuition purposes.

Initial tuition classification is determined from information a student supplies on an application for admission to Colorado Mesa University. Failure to completely answer questions may lead to an initial classification of out-of-state for tuition purposes. A student's residency status will be stated within their admissions letter. Students who identify that their classification is incorrect should contact the Admissions Office immediately.

Students who are entering a Colorado university after completing high school are granted in-state status if they:

- Are a United States citizen or a permanent resident of the United States
- Graduated from a CO public or private high school (list school)
- Attended a CO high school for at least one year immediately preceding high school graduation (must list specific years of attendance)

Students who have earned a GED or high school equivalency exam in Colorado are granted in-state status if they:

- Are a United States citizen or a permanent resident of the United States
- Successfully completed a GED test (list test date)
- Resided in CO for the 12 months preceding the proposed first semester of enrollment at a CO college (list specific years of residence)

New students seeking in-state status who are unable to answer either of the above series of questions will need to answer all questions on the residency section of the admissions application. If a student is under the age of 23 and not otherwise emancipated via marriage, having a dependent or having been in military service, then CO statute requires parental information to determine the student's residency status. A student under the age of 23 may be granted in-state tuition based on their parental information as long as the parent meets Colorado in-state statute requirements and the student is not otherwise emancipated as previously mentioned. All questions in the residency section of the admissions application should be answered with parent information in this case.

If a student under the age of 23 is emancipated via marriage, having a dependent or having been in military service, they need only provide their own information (not parent information). If a student is over the age of 23, questions need only be answered with student information (not parent information). Colorado statute requires physical presence (domicile) and intent to be a permanent resident of Colorado a full 12 months prior to the first day of the semester in which the student wishes to be considered in-state.

Students Under 23 with No Colorado Resident Parent

Students under the age of 23 seeking in-state tuition, that do not have a parent who resides in CO and are not otherwise emancipated as outlined above, must submit a notarized Residency Petition to request in-state status on their own accord. These students must prove that their sources of income are sufficient to meet their financial needs without any parental assistance for a full 12 month period prior to the term they are seeking in-state status. In addition, they must prove 12 month's domicile (bodily living) in CO and that all prior state ties are severed and created in CO for that 12 month period. A Residency Petition will require documents be attached as proof and must be notarized.

If a student under the age of 23, has attended a Colorado high school for a least one year preceding graduation of a Colorado high school, and has graduated a Colorado high school or received a Colorado GED, the student has 3 years and 6 months to enroll at a public Colorado college or university to be considered for in-state tuition without a residency petition.

Changing from Out-of-State to In-State Status

Students who begin classes at CMU with out-of-state tuition may petition for in-state status when they believe they have met all state of CO requirements for such. A Residency Petition may be submitted if:

1. The student is under the age of 23 and their parent is now a CO resident;
2. The student is under 23 and seeking in-state status on their own accord; or
3. The student is over the age of 23 and believe they have now met CO requirements for in-state status.

A change in status is NOT automatic after attending CMU as an out-of-state student for one year; a student's way to request in-state status is by submitting a completed Residency Petition with all requested documents attached. Domicile (bodily living) in CO a full 12 months and intent to be a permanent resident of CO are required. Intent requires severing prior state ties and creating them in CO. Such items include, but are not limited to: driver's license, vehicle registration, voter registration and payment of CO state income tax.

The Residency Petition may be found on our Admissions Forms web page. Completed petitions with all requested documents attached are to be submitted directly to the Tuition Classification Officer located in the Admissions Office.

Residency Appeals

Students who do not agree with the decision of their residency petition may appeal the decision in writing within 15 days from the date their denial decision was e-mailed to them. The appeal and any additional documentation should be sent directly to the Tuition Classification Officer located in the Admissions Office. The decision of the Residency Appeals Committee is the final university determination. For further residency related questions, please contact the Tuition Classification Officer at 970.248.1875 or residency@coloradomesa.edu.

Military Exemptions and Tuition

Certain exemptions for in-state tuition status are available for military personnel if:

- Military personnel is active duty and stationed in CO – copy of orders needed to consider student, spouse, or children in-state without further documentation.
- Honorably discharged veterans, not using military education benefits, that have resided in Colorado less than 12 months are eligible for in-state tuition with a copy of their DD-214 showing honorable discharge and proof of Colorado being a true and fixed permanent state of residence before the first day of the term.

- Veteran is using VA Education benefits – a copy of Certificate of Eligibility must be provided to the CMU Veteran Services office.

Service members who do not receive an honorable discharge are not eligible for in-state status under the state statutes or for federal veteran education benefits. These students, may, however, meet Colorado in-state residency requirements outlined in C.R.S. 23-7-103.

Contact the Tuition Classification Officer in the Admissions Office for further details.

Dependents of Military Personnel

Certain exemptions for in-state tuition status are also available for dependents of military personnel if:

- Military personnel is an active duty member of armed forces in CO and is
  - stationed in CO or
  - was transferred out of Colorado;
- Military personnel is active duty in the state during the student's last year of high school and student intends to enroll in CMU within 12 months of graduating from high school;
- A veteran child dependent or spouse applying as a student must:
  - Have a military parent/spouse who was stationed in Colorado within the last 12 years on PCS orders
  - If a child dependent, be biological or legally adopted
  - If a spouse, have been married to the military member at the time the member was stationed in Colorado and at the time the spouse is requesting resident tuition classification
    - Veteran dependents who do not qualify for the exception above may qualify for in-state tuition if the dependent qualifies under the requirements of the Johnny Isakson and David P. Roe, M.D. Veterans Care and Benefits Improvement Act of 2020 Sec 1005. To qualify through Isakson and Roe, the student must be using transferred post-9/11 GI Bill benefits
- The honorably discharged service member does not reside in Colorado, but was assigned on permanent or temporary duty in Colorado within the past 12 years;
- Dependent is using VA Education benefits – a copy of Certificate of Eligibility must be provided to the CMU Veteran Services Office.

Additional In-State Tuition Classification Consideration

Additional populations may be eligible for in-state consideration:

- Residents without lawful immigration status may be eligible for in-state status if they meet all criteria through ASSET as outlined in the following paragraph.
- Students affiliated with a Native American tribe with historical ties to Colorado.
- Special immigrants and refugees with eligible documentation.
- Peace Corps volunteers.
- U.S. Olympic athletes (if approved by Olympic Committee and governing bodies).
- Residents of the Freely Associated States (Federated States of Micronesia, the Republic of the Marshall Islands, and the Republic of Palau).
- For additional population consideration, please review the Colorado Revised Statutes, Sections 23-7-101 to 104 and 23-7-105 to 113.

Students without Lawful Immigration Status and Colorado ASSET Bill

SB 13-033, otherwise known as the ASSET bill, was signed into law in April of 2013. This bill allows certain students without lawful immigration status to be considered in-state for tuition purposes when all the following criteria are met:

1. Attended a CO high school for a minimum of one year;
2. Graduated from a CO high school or completed a general equivalency diploma (GED) in Colorado;
3. Have completed the College Opportunity Fund (COF) application process including attached Affidavit;
4. Reside in Colorado for at least 12 consecutive months prior to enrolling at the institution.

Students having earned a GED may be considered as long as the GED or high school equivalency test is completed in Colorado and they have completed the COF application and affidavit. Students who were not admitted to the university within 12 months of their high school graduation or GED test date must prove 12 months physical domicile in CO in addition to the above requirements. Please contact the Tuition Classification Officer in the Admissions Office for further details.

Tribal Registration

Under the Colorado American Indian Tribes In-State Tuition Act (effective Fall 2021), a student who would not otherwise qualify for in-state tuition and who is a registered member of one of the federally recognized American Indian tribes with historical ties to Colorado, as designated by the Colorado Commission of Indian Affairs in partnership with History Colorado, is eligible to be classified as an in-state student for tuition purposes.

Special Immigrants & Refugees

According to Senate Bill 18-087 (effective Fall 2018), a foreign national admitted to the United States as a refugee or special immigrant who settles in Colorado upon entering the United States is eligible for classification as an in-state student immediately upon settlement in Colorado. The primary purpose for settlement in Colorado must not be solely for educational purposes.

Required documentation may include:

- A copy of your Form I-589 or other proof of application
- If you're under the age of 23: A copy of your Colorado parent's immigration status to the United States
- If you've recently applied for U.S. permanent residency: A copy of your I-485 receipt notice

Peace Corps

Senate Bill 23-096 (effective Fall 2023) requires a Peace Corps volunteer to be classified as an in-state student for tuition purposes if the student was certified by the director of the Peace Corps as having served satisfactorily as a Peace Corps volunteer.

U.S. Olympic Athletes

According to Colorado residency statute 23-7-105 students who would not otherwise be classified as an in-state student may be classified as in-state for tuition purposes if the athlete is residing in Colorado, training at an elite level program, and approved by the U.S. Olympic Committee and governing body.

Campus Payment Plan

Colorado Mesa University provides a payment program designed to meet the specific needs of students and parents. Semester charges for tuition, fees, institutional room and board, and other institutional charges can be paid in monthly, semi-monthly, or weekly installments, beginning in August (for fall), January (for spring) and May (for summer). Contact IRIS for more information or visit ePay.

Residency Petition Deadlines

Semester	Qualifying Cut-Off Date	Submit Petitions No Later Than
Summer 2025	First day of class	May 27, 2025
Fall 2025	First day of class	August 18, 2025
Spring 2026	First day of class	January 20, 2026
Summer 2026	First day of class	May 26, 2026
Fall 2026	First day of class	August 17, 2026
Spring 2027	First day of class	January 25,2026

Qualifying Cut-off Date

The date by which the 12-month physical domicile must have expired in order to possibly be classified in-state for the specified term. The 12-month period begins after a student has completed their move to the State of Colorado and has severed ties to their previous state or county, not merely when a student arrives in Colorado.

Petition Deadline

The Tuition Classification Officer, located in the Admissions Office, must receive fully completed petitions by the first day of the semester that the student is petitioning for in-state. Petitions received after the start of the semester will not be considered without prior exceptions being granted. If you have questions, please reach out to the Tuition Classification Officer at the Admissions office by calling 970.248.1875 or emailing residency@coloradomesa.edu.

ACADEMIC AND STUDENT SERVICES, OFFICES, AND ACTIVITIES

Important Contacts

Office of Academic Affairs, 970.248.1881
Integrated Resources for Information and Solutions (IRIS), 970.248.1177
Office of Student Services, 970.248.1366
Student Life, 970.248.1111
CMU Tech Student Services, 970.255.2670

Admissions Office

1100 North Avenue
800.982.6372 or 970.248.1875

The Admissions Office serves as the welcome center for future students and their families. Among the staff's responsibilities are the recruitment of students and the processing of admissions applications, new student academic scholarships, and petitions for changes to residency classification for tuition purposes. Activities of the University's student ambassadors are also coordinated through this office as well as daily tours and other campus visit programs.

Alumni & Career Services

University Center, Room 107
970.248.1404
career@coloradomesa.edu

Alumni & Career Services is committed to supporting students and alumni in achieving their career aspirations. Our team facilitates career exploration, professional development coaching, and employer connections to empower students in charting their career paths. Additionally, Alumni & Career Services assists employers in coordinating on-campus visits and establishing connections on campus to fulfill recruitment needs and hiring objectives. Services provided encompass a range of offerings, including:

- Fairs and Events:
  - Job fairs – Maverick (on-campus), Grand Valley, Graduate School, Teacher Education, and other industry-specific job fairs
  - Workshops for student and alumni job seekers
  - Industry Hours and other industry-specific networking events
- Office Resources:
  - Handshake (student and alumni job and internship online posting platform found in MAVzone apps)
- Student Appointment Types:
  - Career development and exploration
  - Advising with resume, cover letter, and/or personal statement
  - Search strategies for employment on- and off-campus or internship experiences
  - Mock interviews
  - Personal branding/LinkedIn guidance
  - Alumni-specific appointments

For more information and updates visit our website and follow us on Facebook, Instagram, and LinkedIn!

Campus Recreation Services

Hamilton Recreation Center
970.248.1592

Campus Recreation Services is established to provide varied programs and services that will contribute to the health and well-being of the students of Colorado Mesa University. Hamilton Recreation Center encourages responsible use of leisure time by providing an atmosphere that fosters the development of lifelong patterns of recreational activities and opportunities for participation in such activities regardless of age, sex, race, or motor ability. To do so, facilities and resources are designed to provide appropriate environments for participants through the following:

- Providing access to recreation facilities, equipment, and activities for convenient, informal participation (Open Recreation Program). These facilities include a multi-sport gymnasium, outdoor basketball and sand volleyball courts, cardio machines, free weights, cross-functional Rogue Infinity training rig, TRX suspension training, reinforced medicine ball wall, racquetball courts, 38-foot climbing wall, and premier swimming pool.
- Offering structured and non-structured opportunities for improving and maintaining physical fitness (Wellness Program). These opportunities include group exercise classes like yoga, spin, and Zumba, wellness assessments, personal training including exercise program prescription, massage therapy, and nutrition counseling.
- Offering students significant opportunities for career development, including the acquisition of leadership, management, and technical skills in all areas of Campus Recreation Services (Student Employment Program).

Our newest addition, the Foster Field House, was completed in 2023. Inside houses 5 basketball courts (1 mondo, 4 wood courts) with drop-down basketball baskets and volleyball nets. The facility has classroom space primarily used for our Kinesiology Athletic Training Program. The track (and sky bridge) connect to the already existing Hamilton Recreation Center. All 3 loops of the track equate to approximately 1/3 of a mile.

Our 24-hour fitness venue, Lucero Fitness Facility, was added in 2019. It is located in the lower level of Lucero Hall. At approximately 1,200 square feet, it includes cardio equipment, strength equipment and core/stretching equipment. Access for the facility may be requested via the Residence Life Staff.

CMU also offers structured competitive and social opportunities in a variety of individual and team sports (Intramural and Club Sports). Intramural sports are free for all students at CMU. Providing an opportunity to compete against classmates, dorm mates, and other campus members in soccer, flag football, basketball, volleyball, ultimate Frisbee, softball, dodgeball, and battleship leagues and one day tournaments. Head to the Intramural Sports website or contact the Intramural Sports office at 970.248.1591 for details on how to sign up for the next league!

The CMU Club sports department offers 27 teams that compete toward 50 different collegiate national championships outside the NCAA. These teams range from Varsity caliber sports to competitive club sports teams. However, they are all required to participate in collegiate leagues that award a National Championship at the end of the season.

Sport team: Alpine & Nordic Ski, Archery, Baseball, Bowling, Cycling, Disc Golf, E- Sports, Fencing, Ice Hockey, Rodeo, Men's Rugby, Men's Soccer, Men's Volleyball, Softball, Swim/Dive, Table Tennis, tennis, Shot gun, Ultimate Frisbee, Women's Rugby, Women's Soccer, Women's Volleyball, and Water Polo. For more information, please visit the CMU Athletics website or contact the Club Sports office at 970.248.1115.

Center for Academic Support

Tomlinson Library 305: 970.248.1392
CMU Tech: 970.255.2808
Montrose: 970.249.7009

The Center for Academic Support is committed to helping students achieve their academic goals by providing free, walk-in peer tutoring services in a variety of subject areas. The primary goals of the Center for Academic Support are to help students become more independent with their learning and to create opportunities for student success.

The Center for Academic Support accomplishes these goals by:

- Offering study tips and giving feedback on student assignments.
- Reviewing concepts, types of problems, and rules.
- Helping students follow an instructor's directions and use their textbooks, syllabi, and materials more effectively.
- Introducing students to many self-help and campus resources available to them.
- Serving student across all disciplines and various stages of the writing process.
- Provide support for students to assimilate into the writing conventions of the university and into their specific academic disciplines.

The tutoring services that are offered by the Center for Academic Support include:

- In-person tutoring
- Group tutoring
- Online tutoring
- Writing assistance
  - Online and in-person
- Graduate Writing assistance
  - Online and in-person

Online Tutoring

Online tutoring is offered for most subjects through the TLC and Writing Center app on MAVzone. Tutors work with students through D2L, Microsoft Teams, or Zoom.

CMU Tech Student Services/IRIS

Building B, Room 102
970.255.2670

As a satellite office for IRIS (Integrated Resources for Information and Solutions), Student Services staff at CMU Tech are available to assist students with a number of services including academic advising, registering for classes, financial aid assistance, help understanding their bill and setting up payment plans, taking tuition payments, conducting campus tours, and answering questions about our 16-week to one-year certificates and two-year associate degrees. Student Services also administers the concurrent enrollment program that allows high school students to take college classes.

Distance Education

Tomlinson Library 135
distanceed@coloradomesa.edu

Distance Education supports the development, delivery, and management of quality online, hybrid, and technology-enhanced courses. Distance Education manages the university's Learning Management System (LMS), D2L, and serves as a resource for both students and instructors navigating digital learning environments. The goal of Distance Education is to enhance educational experiences through technology. For additional information, please visit the Distance Education website.

Educational Access Services

Houston Hall, Room 108
970.248.1856
eas@coloradomesa.edu

Support services for students with disabilities are available through Educational Access Services (EAS), a division of Academic Services. Reasonable accommodations are determined based upon an interactive interview with the student and the impact the disability has on the student. Services can include, but are not limited to, ASL interpreting, note taking accommodations, testing accommodations, textbooks in alternate formats, closed captioning and assistive technology resources/training. Students needing accommodations, must initiate a request for accommodations by completing the online New Student Application. Prospective students are encouraged to contact the EAS to discuss accommodations as soon as possible since accommodations are not retroactive. For additional information, please visit the EAS website.

Emergency Contact Services

Lowell Heiny Hall, Room 441
970.248.1366

The Office of the Vice President for Student Services, located in LHH 441, is the referral point for student emergencies. Student Services will work directly with a student in the case of an emergency. The Student Absence Notification will be sent to professors notifying them of a student emergency. In some cases, a student needs accommodations in which Student Services and Academic Affairs will work with professors on a solution.

Financial Aid Office

Lowell Heiny Hall, First Floor
970.248.1396
Financial Aid Office Website

The Financial Aid Office works with students to meet educational expenses through various monetary resources. Depending on a student's qualifications, aid is available in the form of scholarships and grants that do not need to be repaid. Additionally, students can apply for loans that are need- or non-need-based, as well as, work-study employment.

Intercollegiate Athletics

Maverick Center
970.248.1503

Intercollegiate athletics provides students with equitable opportunities to enhance their education, represent the University, and participate in athletics while developing skills and understanding. All undergraduate students are encouraged to participate in intercollegiate athletics as determined by their interests and capabilities.

Participation in the program, however, is secondary to the academic expectations of students. To this end, it is the responsibility of those administering the program to schedule the length of playing seasons, the frequency of practice sessions, and the number of contests so that they shall not unreasonably conflict with students obligations to attend class regularly, to study, to develop their intellectual, moral, and social faculties, and to graduate from the university as educated men and women. The men's program at Colorado Mesa University includes baseball, basketball, football, golf, soccer, swimming and diving, tennis, lacrosse, cross country, track and field, and wrestling. Basketball, cross country, golf, beach volleyball, soccer, softball, swimming and diving, tennis, lacrosse, track and field, triathlon, volleyball, and wrestling are available to women.

Colorado Mesa University also offers competitive cheerleading.

International Student Admissions Office

Admissions
970.248.1609

The International Student Admissions Office oversees international student admissions and recruitment and is the primary resource for international students up to admission.

International Student Services Office

University Center
970.248.1759

The International Student Services Office oversees international student services and advising, immigration and visa processing, international initiatives and development, and international student programming. This office is the primary resource for admitted and enrolled international students, as well as incoming study abroad students.

IRIS

Lowell Heiny Hall, First Floor
970.248.1177
IRIS Website
iris@coloradomesa.edu

CMU uses the Appreciative Advising model to provide students holistic academic advising and financial counseling through Integrated Resources for Information and Solutions (IRIS). Students partner with their IRIS Advisor to stay on top of their academic plan, financial success, and connect to the campus community. IRIS Advisors act as the academic advisor for first time freshmen and students with undeclared majors, Compass, and COSI Students. IRIS Advisors also provide financial counseling to assist students with completing the financial aid process, understanding their bill, setting up payment plans, and understanding their educational expenses. IRIS is committed to assisting students in attaining their educational and financial goals. IRIS has a wide range of opportunities and services to focus on the individual needs of the students ranging from one-time drop-in services to longer, comprehensive services.

Services provided at IRIS include:

- **Academic Advising:** Get help with academic planning, course selection, major exploration, and more.
- **Registration:** Get help navigating the registration process and adding/dropping classes.
- **Financial Counseling:** Get help completing a FAFSA, understanding your financial aid and educational costs, setting up a payment plan, estimating expenses for future semester, and navigating ePay.
- **Policy Questions:** Get help understanding different academic and institutional policies, holds, forms, etc.
- **MAVzone Questions:** Get help navigating MAVzone and completing self-service activities like requesting transcripts, submitting forms, or updating your address.
- **Get Connected:** Not sure who to ask? IRIS Advisors can help find the answer or get students connected to the right resource. Remember if you have questions, you can always ask IRIS!

Compass

Compass is IRIS's academic support program for students admitted to a CMU bachelor's degree, associate's degree, or certificate program with supports. The mission of Compass is to empower you with the knowledge, skills, and confidence necessary to navigate the challenges of college life with resilience and humility. As a Compass student, you will:

- Meet with your individual IRIS Advisor for one-on-one advising to help you plan your progress toward your degree and your student finances. Your IRIS Advisor is your go-to person on campus and is here to support, guide, and empower you to achieve your goals.
- Explore your strengths and career pathways through stackable degree tracks and major/career advising.
- Connect with your Peer Success Coaches for peer-to-peer tips on navigating college.
- Engage with the campus community by participating in student success workshops and events.

The IRIS Advising Team is here to support you in your next steps. We're excited to work with you and help you create your college roadmap with Compass!

John U. Tomlinson Library

970.248.1860
library@coloradomesa.edu

Tomlinson Library is a welcoming, comfortable environment, providing research assistance from professional librarians, reservable study rooms, 24-hour study space, computers, printers, scanners, IT support, convenient dining options, outdoor seating with a fire pit, and much more.

The library collection includes over a million books, e-books, and audio-visual materials. Also available are over 200 databases which include full-text academic journals and other online resources. Additional materials are available for borrowing from many academic, research, and public libraries throughout Colorado and beyond. Materials can be delivered to the Montrose campus and CMU Tech.

Librarians provide personalized research assistance to patrons. Faculty can request information literacy instruction from librarians to help students identify, evaluate, and ethically use information sources within and beyond the Library. Individualized research assistance is available

at our Research Help Desk, by chat, telephone, or email. Library staff are happy to answer any questions about the library's resources or services.

Little Mavericks and Mini Mavericks Learning Centers

970.248.1318

Childcare is available year-round for children of Colorado Mesa University students, faculty, and staff, plus community, in that order of priority, on a first-come, first-served basis. Mini Mavs serves infants six weeks old up to three years of age, while Little Mavs serves children aged one through six years. Additionally, a summer camp is available for children ages 6-12 years of age. For further information, visit the Little Mavericks website or email cmulittlemavs@coloradomesa.edu.

MAVcard Student ID

University Center
970.248.1059

The Colorado Mesa University MAVcard is your key to campus services at Colorado Mesa University. The MAVcard can be used at a variety of locations around campus which includes few places like Starbucks, Chick Fil A, The Caf, Hamilton Recreation Center, Residence Halls, CMU Athletic games, and Student Life events. It can also be used at off-campus merchants' locations such as Mountain Grind Coffee Company, Bravo Pizza, Domino's Pizza, Sugar & Ice Co., Jimmy John's (on 12th Street), and The Scramble at CMU Tech.

National Student Exchange Program (NSE)

Registrar's Office
970.248.1813

Colorado Mesa University is a member of the National Student Exchange Program. NSE is a consortium of over 160 colleges and universities in the United States, its territories, and Canada. Colorado Mesa University students may be able to participate in this program at in-state tuition rates for up to one academic year and receive full credit for course work completed while on exchange. For further information, contact the Registrar's Office or visit CMU's National Student Exchange website.

Parking Services

University Center
970.248.1921

A parking permit is required to park on campus year-round. Students and University faculty/staff members who wish to park on campus may purchase parking permits for designated areas. Your license plate is your permit (after it is registered, and the permit fee is paid). A parking permit does not guarantee a parking space but allows on-campus parking when such space is available. **Pay to Park, Reserved Lots, loading zones, accessible parking spaces, and fire lanes are enforced all year, even during college breaks, move in and move out.** Visit the Parking Services website for more information.

Registrar's Office

Lowell Heiny Hall, Fourth Floor
970.248.1555
registrar@coloradomesa.edu

The Registrar's Office provides a variety of enrollment and academic records services. Enrollment services include readmission to Colorado Mesa University, course setup, course registration, enrollment appeals, evaluation of transfer credits, and Veteran's benefits certification. Academic records services include issuing official transcripts, issuing diplomas, verification of enrollment, student demographic updates such as change of address, and answering questions about records privacy under the Family Education Rights and Privacy Act (FERPA). Additional services include certifying degree requirements for graduation and awarding degrees, publishing the academic calendar, publishing the office course catalog, and academic room scheduling. For more detailed information on any of the services, please visit the Registrar's Office website.

Student Accounts

Lowell Heiny Hall IRIS Desk
970.248.1177

Student Accounts is responsible for student billing, collection of tuition, fees and other charges, as well as, refunding excess Financial Aid to students. We administer various payment options and schedules (such as the campus tuition payment plan) to ensure bills are paid on time without penalty. For detailed information concerning the various costs and fees a student may incur and payment options please visit the Student Accounts website.

Student Diversity, Advocacy, and Health

Student Wellness Center
970.248.1754

The Student Diversity, Advocacy, and Health office works alongside the office of Student Services to support a diverse student body of Colorado Mesa University. This office specializes in problem solving and helping students to become better informed and grow as adults; whether these decisions involve classes or any other aspect of university life. Student Diversity, Advocacy and Health office provides students with real life inclusion experiences by interacting and learning together to respect a broad range of people from diverse backgrounds. This office offers an arena for students to have a greater appreciation and understanding of inclusion and diversity so they are prepared to take on leadership roles in society. This office supports student wellness on campus, provides access to medical and behavioral health service providers, and links students to supportive resources on campus.

Student Life

University Center, Room 212
970.248.1111

There are a number of student fee-funded organizations that are administered by Colorado Mesa University students including the following:

- Associated Student Government (ASG): ASG is the representative body and official voice of the students. The ASG operates through the General Assembly, a legislative body composed of students elected by the student body. Students involved in ASG have an opportunity to gain leadership skills by representing student opinions to the CMU administration and the University's Board of Trustees, and they are responsible for reviewing and administering student fee requests. Visit the Associated Student Government page for more details.

- Campus Design Studio (CDS): The Campus Design Studio is a student-run organization that provides high quality graphic design work for student clubs and organizations, on campus departments, and off-campus clients. The Campus Design Studio is responsible for most on-campus student publicity, including the Stall Street Journal.
- Club Advisory Board (CAB): Many student clubs and organizations exist at Colorado Mesa University. Currently CMU has over 140 active clubs on campus including honor societies, academic clubs, general interest clubs, fraternities and sororities, faith-based clubs and volunteer and activist clubs, which allow students to meet other students who share similar interests. A list of current active clubs and organizations can be viewed on Presence (CMU's student engagement software).
- CMU-TV: A student operated and managed television station, which broadcasts from the CMU campus on cablevision. CMU-TV normally provides news and sports twice per week. Although most staff members and managers are Mass Communication majors, students in all academic disciplines are encouraged to join CMU-TV to gain professional experience in television. The studio is located on the first floor of Escalante Hall in room 112.
- The Criterion: A bi-weekly student-published newspaper, covers campus news and represents student views on local, regional, and national issues. The Crite has been the voice of the students since 1931 – making it one of the oldest and longest running organizations at CMU. Visit their website to see articles and learn how to contribute.
- Cultural Inclusion Council (CIC): This organization offers leadership experiences for students and organizes events to educate students on our diverse campus community. Member groups include the Black Student Alliance (BSA), Genders & Sexualities Alliance (GSA), Ho'olokahi Polynesian Alliance (HPA), International Student Alliance (ISA), Latino Student Alliance (LSA), and Native American Student Association (NASA). Visit the Cultural Inclusion Council page for more details.
- Greek Executive Council (GEC): This council is made up of leaders of the sororities (Alpha Sigma Alpha, Gamma Phi Beta) and fraternities (Kappa Sigma, Theta Xi). This group works to provide opportunities while at CMU, including lifelong friendships, academic excellence, philanthropy, and a commitment to inclusion and diversity.
- Horizon Magazine: Horizon Magazine is a full-color student magazine produced at least once each semester by CMU students. Horizon is a general interest magazine that contains feature articles and photography of the people, places, and events that make up the community. Two thousand copies are distributed around campus and many other locations in Grand Junction. The magazine has expanded its reach by creating a full website, containing the content from each issue.
- Intramural Sports: now offering more than 30 different sports, intramural sports are a fun way to meet people and stay active. Leagues are always forming and run from one day tournaments to 8-week competition. Sports range from flag football, softball, racket-ball, battleships, and many more. Visit the Colorado Mesa University Intramural Sports page for more details.
- KMSA 91.3FM: Established in 1975, KMSA is CMU's student-fun radio station. Student DJ's host their own shows in a variety of genres – music for the Mavs. You can listen locally on 91.3FM or stream on the website.
- Literary Review: The Literary Review publishes short stories, short fiction, poetry, and art created by CMU students and is printed yearly in the spring. While it typically accepts only works created by Colorado Mesa University 's full-time students, who pay student fees, the publication nevertheless encourages students taking at least one three-hour course at CMU to submit creative pieces, whether that course is offered on campus or on-line.
- MAVrides: Provides free and safe rides to all CMU students every Thursday, Friday, and Saturday nights from 9pm-3am during the fall and spring semesters. Call for a ride or volunteer as a driver 970-248-2222, or visit the MAVrides page for more details.
- Media Organizations: These organizations include the student newspaper The Criterion, the student radio station KMSA 91.3 FM, the literary and art publication Literary Review, the Campus Design Studio, and the Horizon Magazine. Each of these groups is professionally advised by faculty members and utilizes the latest equipment employed in their fields.
- Outdoor Program: This group is CMU's headquarters for outdoor adventure and education. The Outdoor Program organizes trips and classes including whitewater rafting, rock climbing, and skiing. The rental center is located off North Avenue between Houston Hall and Lucero Hall. Rent mountain bikes, canoes, kayaks, cross-country skis, backpacks, and other gear. More details are available on the Outdoor Program website.
- Performing Arts Organizations: While not technically organizations under Student Life, all CMU students are encouraged to audition to join a musical group, participate in theatre, or be part of a dance performance. Performances in the arts are highly regarded at Colorado Mesa University and are well attended by students and the community. Please visit Arts at CMU for more information about programs, organizations, and shows.
- Programming Activities Council (PAC): PAC is responsible for Welcome Week, Homecoming, and the spring concert as well as other entertainment activities including concerts, movies, dances, comedians, and grocery bingos. Best of all, every one of the over 100 yearly events are free for all CMU students. Details about the council and activities are provided on the Programming Activities Council page.
- Sustainability Council: Committed to providing sustainable solutions to CMU, the Sustainability Council oversees a recycling program, a campus garden and compost facility, and a restoring program that receives donated goods from exiting CMU residents to be purchased by incoming students the next fall.

Student Services

Anchored by a fundamental commitment to student learning, character development, and student success, the Colorado Mesa University Student Services division strives to actively engage all students with intentional and purposeful on- and off-campus services, activities, and resources.

The departments within Student Services include IRIS, Student Life, Residence Life, Admissions, International Programs, Campus Safety, Campus Recreation, as well as Student Health and Counseling Services. Within these departments, dedicated staff will engage, serve, and mentor students to help them succeed both inside and outside of the classroom. Additionally, staff within Student Services is dedicated to providing quality customer service to students, faculty, staff, alumni, and guests. For additional information, please visit the Student Services website.

Student Wellness Center (SWC)

1060 Orchard Avenue, Suite O
970.644.3740

Good health, both physical and emotional, is an important factor in successful college work. It is the goal of the Student Wellness Center to provide competent, accessible, and comprehensive health care and wellness to all CMU students.

Medical Services

Like your family physician, the SWC provides a source of basic medical assistance for all CMU students. Outpatient health services are contracted with Community Hospital and students are required to pay a $15.00 co-pay for all health services received at the SWC, with the remainder billed to insurance. The primary services provided are: first aid, dispensing of simple medications, assessment and referral to specialty physicians and dentists, providing counsel for personal health problems, simple physicals, screenings and limited lab tests for a nominal fee. Health services are provided by registered nurses, physicians, and practitioners in providing a complement of health care. The physician/practitioner provides students with an initial health assessment and evaluation, treats minor illnesses, and refers students for hospitalization or specialized treatment as needed. A registered nurse is available to answer questions and provide medical information.

Behavioral Health Services

CMU students are eligible for counseling services for a $15 copay, with the remainder billed to insurance. Students can access and referrals can be made through any office on campus or directly by calling the SWC to set up an appointment. These services are provided by licensed/certified counselors and are designed to support students in assisting them with any of life's challenges that may be affecting their academic life.

Mavs Choices Group Class

These classes are designed to support students in emotional regulation, communication, and mindfulness, assisting in making adjustments to life's transitions and the changes in their lives. These classes are based on Dialectical Behavior Therapy (DBT) approaches that focus on the aspects of mindfulness, emotional regulation, distress tolerance, and interpersonal effectiveness.

Sober Minded

These classes are designed to address substance misuse and prevention. The University, which is an active participant in the Mesa County Prevention Policy Board, supports the concepts of proactive prevention as part of the University's overall policy of maintaining a safe and healthy campus. Sober Minded is an evidenced-based, city approved curriculum for substance abuse prevention and is a harm reduction model that focuses on healthy lifestyle choices.

Hours of Operation

Students can schedule an appointment by stopping by the SWC or by calling 970.644.3740.

Monday–Saturday: 8am–6pm
Sunday: Noon–4pm

Medical walk in times are available during regular office hours and students can schedule a medical appointment online by selecting the Schedule Appointment Online button on the Student Wellness Center website or by calling 970.644.3740.

Study Abroad

University Center
970.248.1802

In addition to developing direct agreements with foreign institutions for exchange opportunities, Colorado Mesa University is part of the International Student Exchange Program (ISEP). ISEP is a worldwide network of over 150 programs at colleges and universities in over 50 countries around the world. CMU students who choose to study abroad for a semester or academic year on ISEP "exchange" pay CMU tuition/fees and room/board during the semester/year abroad. Students may also choose to go "direct" and pay ISEP directly for their summer, fall, or full year study abroad. Visit CMU's Study Abroad webpage or contact the Study Abroad Office for more information on all study abroad opportunities available to CMU students.

Testing Center

Houston Hall, Room 123
970.248.1260
Testing Center Website

The Testing Center services include, but are not limited to, examinations required for admission to graduate and professional schools, examinations for proficiency and certification in nursing and teaching, the credit by examination program, and community-based testing opportunities.

TRIO Student Support Services: Classic or STEM

First-Gen + Support Center
Lowell Heiny Hall, Fourth Floor
970.248.1770

Colorado Mesa University has two (2) TRIO Student Support Services (TRIO-SSS) Programs. The Classic SSS program serves all CMU majors. The STEM SSS program serves: Science, Technology, Engineering, Mathematics, and Health Sciences. TRIO-SSS assists participants in achieving their academic, personal, and career goals. TRIO acts as a home base and its purpose is to increase the retention and graduation rates of the participants. Students apply to join the program and active participants are supported in a variety of areas including: individualized tutoring, academic advising, personal mentoring, financial aid advising, peer coaching, personal financial literacy, and career development. To be eligible for TRIO you must plan on finishing a four year degree from CMU, be a first generation college student, and/or meet income qualifications, and/or have a documented disability. TRIO is sponsored by the U.S. Department of Education and Colorado Mesa University, a department within Enrollment Management. For more information, visit the TRIO Student Support Services (TRIO-SSS) website.

Veteran Services

Houston Hall, Room 121
970.248.1739

Veteran Services certifies students who are utilizing veteran education benefits while attending CMU. Trained staff and student workers can answer questions related to applying for, transferring, and using these benefits. Veterans, dependents, and active-duty military can also get help with registration and schedule changes. Tutoring is available through the Center for Academic Support. Applications to apply for the

Veteran Laptop Project are available if students want to rent a laptop for the semester. Students who are looking for a place to study, grab a snack, and potentially interact with veteran peers should feel free to visit the Veteran Lounge in Houston Hall 110A. For more information, visit the Veterans Services website.

UNIVERSITY-WIDE ACADEMIC OFFERINGS

- Academic Honors Programs (p. 62)
- Freshman Year Initiative (FYI) Program (p. 62)
- Study Abroad (p. 62)
- Undergraduate Developmental Courses (p. 62)

Academic Honors Programs

Program Description

As a member of the National Collegiate Honors Council, Colorado Mesa University's Honors Program offers highly-motivated undergraduates enriched studies in their academic majors. Based within each academic department, completion of honors requirements varies by academic program, but each includes opportunities for students to actively engage in more advanced study through coursework and a capstone project that can include research or creative work presented in a scholarly venue. Students completing a program's academic honors requirements are recognized at CMU's Commencement Ceremony.

At a minimum, students seeking participation in an Academic Honors Program must have earned at least 45 semester credit hours with a minimum 3.5 grade point average (GPA) at the time of application; academic programs may have additional admissions criteria. An application process occurs each spring semester, and interested students should contact the Academic Department Head for the application deadline. In addition to the credit hour and GPA qualifications, an applicant also should submit:

1. the application form; and
2. a summary of no more than one, single-spaced page that:
   a. details the applicant's academic background, community and/or University service, and academic awards; and
   b. describes briefly why they are applying for an academic honors program of study.

Admission to the Academic Honors Program in each department is competitive. Applications will be reviewed by faculty members in the appropriate program/department, and students will be notified on their acceptance status within the time frame indicated in the program-specific information.

Contact Information

Please contact the appropriate Academic Department Head for the major.

Freshman Year Initiative (FYI) Program

Program Description

Colorado Mesa University offers first-year freshmen an opportunity to participate in a program designed specifically to enhance their first-year experience, ease the transition from high school to college, and improve their overall success in college. This program, Freshman Year Initiative (FYI), is offered to new freshmen prior to the start of each fall semester as one of our Early Start Program. The University's academic success course, First Year College Success, UNIV 101 is the primary focus of the FYI Program. UNIV 101 is a two-credit elective course designed to introduce students to the resources of the University and to enhance their study skills in order to be better prepared for the expectations of college-level work.

Contact Information

Admissions Office
Welcome Center
970.248.1817

-or-

Academic Affairs Office
LHH 204
970.248.1881

Study Abroad

Program Description

Colorado Mesa University offers a variety of study abroad opportunities including exchanges with foreign university partners, through faculty-led experiences, and to over 150 programs in over 50 countries around the world through our partnership with the International Student Exchange Program (ISEP). ISEP's reciprocal exchange program allows CMU students to pay CMU tuition/fees and room/board during their semester or academic year abroad. Direct enrollment options are also available, as well as internships in a student's field of study. ISEP students are fully immersed in an intercultural experience at their host institution and are able to explore the global opportunities of their chosen academic field. Visit the CMU Study Abroad webpage for additional information including eligibility and application instructions.

Contact Information

Annie Gingerich, M.A., Director
International Student Services & Study Abroad
University Center 106F
970.248.1802
studyabroad@coloradomesa.edu

Undergraduate Developmental Courses

Program Description

To maximize student success, Colorado Mesa University provides placement testing and college prep courses so that students can be assured they are prepared to do the college-level work required in their course of study. College prep courses in Mathematics and English are designed for students needing to strengthen their skills before entering college-level classes. MATC 092 is a prerequisite for MATH 113. ENGC 090 is a prerequisite for ENGL 111. They are not intended for transfer purposes and will not fulfill degree requirements.

Contact Information

Office of Developmental Instruction
Tomlinson Library 311
970.248.1021

REGISTRATION POLICIES AND PROCEDURES

Students are responsible for looking up program requirements, viewing their DegreeWorks degree audit report, and meeting with an academic advisor prior to registration to determine courses needed for graduation. Not all courses available in this catalog are offered every semester or every year. Course schedule offerings for each semester, including registration instructions, are available through the Registration Information website. Students should register for classes via MAVzone. If that is not possible or if they need help, they may register in person with the assistance of IRIS.

Policies and Procedures

Add/Drops & Schedule Adjustments

Students may make adjustments to their schedules according to specified deadlines and procedures published on the Important Dates website. Students dropping all of their courses should refer to the Withdrawal Procedures below.

Attendance

Students are expected to attend all sessions of each course in which they are enrolled. Failure to do so may result in a lowered grade, exclusion from class at the discretion of the instructor, or an administrative drop for non-attended courses. Students should not assume that non-attendance will result in an automatic drop from a class (see the Student Liability for Tuition & Fees above).

Instructors may drop any student who fails to attend the first two class meetings or fails to participate in an online class. Instructors may also initiate a drop or withdrawal for a student who fails to attend classes regularly. ("Drops" are up to 15% of class elapsed; "withdrawals" are up to 67% of the class.) Not all instructors will exercise this option; therefore, a student should not assume that non-attendance will result in an automatic drop from a class.

Students who receive financial aid and cease attending classes may need to repay all or a portion of their financial aid.

Attendance by a Guest

Instructor approval is required in advance if a student wishes to bring an occasional guest (or child) to class. Otherwise, the person must be enrolled to attend.

Absences and Tardiness

It is the responsibility of the student to arrange in advance with instructors for making up missed classwork, assignments or tests incurred because of a student's participation in required field trips, intercollegiate sports, or other trips. The coach, instructor, or other official whose activities require students to be absent from classes should give each participating student an "official" roster and schedule of events for the semester or other appropriate time span which may result in classes being missed. The student is responsible for contacting the instructor of each of their classes affected at least 24 hours in advance of each class that will be missed.

Absences due to serious illness or strictly unavoidable circumstances may be excused if the instructor in charge of the course is satisfied as to the cause. In the case of an emergency, the student may contact the Office of the Vice President for Student Services, and that office will contact the student's instructors to inform them of the emergency. Informing the Office of the Vice President of Student Services is not a guarantee that the absence will be excused, however.

Being excused for an absence in no way relieves the student of responsibility for completing all work associated with the course to the satisfaction of the instructor. Being late to a class or leaving a class early is disruptive and is not acceptable except in extreme circumstances or with prior approval of the instructor.

Class Waitlists

Online waitlists are available to students during the registration process. For general classes, when a seat opens, the first student on the list is emailed and given a time period with which the student can add the course. It is the student's responsibility to check their CMU email for notification that their waitlisted class has opened. Failure to register within the designated time frame will result in the student being removed from the waitlist and the opportunity moving the next student on the list. The electronic waitlist is deleted after the first week of a sixteen-week class (1/16 of the class for non-standard parts of term).

Online waitlists for courses with co-requisites (lecture/lab combinations) are administered by the Registrar's Office. The open spaces are given to the first student on the waitlist who can successfully be registered for both the lecture and lab. The waitlist on co-requisite courses will be cleared the Friday before the semester starts to ensure class/lab combinations fill.

The time limit to add from the waitlist will drop from 72 hours to 48 hours the week before school starts and down to 24 hours once classes begin. Students still wishing to add a closed class after the waitlist has been deleted must submit a Special Override Email Request to the instructor during the open add period to add the class in MAVzone. Then, during the late add period student must submit a Course Late Add Form to the instructor on or prior to the add deadline (class census).

Family Educational Rights and Privacy Act (FERPA)

General Policy

The Family Educational Rights and Privacy Act (FERPA) provides students who are enrolled in an institution of postsecondary education the right to inspect, review, and challenge their educational records. Colorado Mesa University has the responsibility of maintaining and protecting the confidentiality of students' official educational records. Colorado Mesa University also supervises the access to and/or release of educational records of its students. FERPA covers enrolled and former students, including deceased students. Students who are not accepted to Colorado Mesa University, or if accepted, do not attend, have no rights under FERPA. In addition, the University will not release personally identifiable records of students to any individual, agency or organization without the prior written consent of the student, except as provided by FERPA.

Directory Information

Colorado Mesa University may, without the consent of the student, release to persons outside the institution information designated as Directory Information in accordance with the provisions of FERPA. Directory Information shall include information in an educational record which would not generally be considered harmful or an invasion of privacy if released, including but not limited to:

1. Student name, address, telephone #
2. Date and place of birth

3. Major fields of study
4. Participation in officially recognized activities and sports
5. Weight and height of athletic team members
6. Photographs
7. Dates of attendance to include enrollment status (i.e., full time or part time)
8. Degrees and awards received
9. Most recent educational institution attended
10. E-mail address

A student wishing to withhold Directory Information may add or remove a confidential indicator to their record via MAVzone under the MyAccount Personal tab. The confidential indicator will limit access to Directory Information to other parties without written permission. This request will be honored until the student removes the confidential indicator via MAVzone or submits the request in writing to the Registrar's Office. Adding a confidential indicator will restrict enrollment verification, graduation verification, and will require the student to conduct business in-person or via MAVzone.

Access to Student Educational Records

FERPA provides current students, former students, and parents of students who claim the student as a dependent (according to Internal Revenue Code of 1954, Section 152) for income tax purposes on their most current federal tax return the right to inspect, review, and challenge their educational records.

Students are permitted to inspect and review their educational records within a maximum of 45 days after the request is received. Students may not review financial information received from their parents or guardians; confidential letters and recommendations placed in their files prior to January 1, 1975; academic records containing information regarding other students; administrative, disciplinary, law enforcement, student health records, and/or records which are maintained in the sole possession of the maker.

While students who have a financial hold or past due account (all holds included) have a right to inspect their academic records, no transcript will be released to the student or other party until holds are reconciled. Bankruptcy, however, removes any financial obligations the student has to Colorado Mesa University. Please contact the Registrar's Office with questions regarding this policy.

Golden Scholars

Colorado Mesa University provides individualized support, including academic and scheduling decisions, for persons 60 years and older. For more detailed information, go to the Golden Scholars website

Classes for Credit

Persons 60 years or older who wish to enroll for credit must submit required admission and registration materials to the Admissions Office. The same deadlines, costs, etc., as for other students will apply.

Classes for No Credit

Persons 60 years of age or older who do not wish to earn college credit may attend undergraduate resident instruction classes on a space-available, instructor-approved basis at Colorado Mesa University for a reduced fee.

Interested persons should obtain an application from the Golden Scholars website. Once admitted, registration for classes is at the beginning of the semester either through MAVzone, IRIS, or the Registrar's Office.

No-Credit Desired/Audit Courses

A student who desires to attend certain undergraduate classes regularly, but does not wish to receive grades or credit, should register for these classes using the audit status.

Tuition charges for classes taken under the audit status are the same as for classes taken for credit, but are not eligible for the COF voucher. Financial aid does not apply to no-credit/audit courses.

The deadline for a student to change from audit to credit is the same as the deadline to add a class. The last day for a student to change from credit to audit is the same as the deadline to withdraw from a class.

Student Liability for Tuition & Fees

For all students, the act of registration automatically confirms attendance and the student will incur a financial obligation to the University. A registered student is responsible for paying their tuition and fees, regardless of whether or not they attend classes, unless the student officially withdraws from the University through IRIS, the Registrar's Office, or drops all courses via the web prior to the deadlines published on the Colorado Mesa University website. It is the student's responsibility to make a copy of the schedule reflecting any courses dropped via the web.

Withdrawal Procedures

Withdrawal from Individual Classes

A student may withdraw from an individual class via MAVzone or the Course Withdraw form prior to the first day of the session until the drop deadline for the course (full semester, late start, modular, or variable length). After the drop deadline, the student must submit the Course Withdraw form up to the two-thirds (67%) of the way through the course as indicated on the Important Dates website. Within the published withdraw deadline, a student will receive a "W" on the transcript which will not be calculated in the grade point average. After the published withdraw deadline, a student will receive a grade of "F" which will be calculated in the grade point average. A student with extenuating, non-academic reasons should review the emergency hardship withdraw or add/drop/withdraw exception sections.

In addition to regular withdrawal from class(es) by the student, an instructor may initiate a course withdrawal for failure to attend classes, failure to turn in assignments over an extended period of time, or for disciplinary reasons. In such cases, the instructor must observe regular withdrawal deadlines as published on the Important Dates website.

Emergency or Hardship Withdrawal from Individual Classes

In the case of an event that qualifies as an emergency or hardship, a student may request an Emergency or Hardship Withdrawal from an instructor after 67%, but before 75% of a course is completed. An emergency or hardship situation is defined as a significant, unexpected non-academic circumstance beyond the student's control and is granted at the discretion of the instructor. Failing, poor performance in a course, or other academic-related reasons do not constitute circumstances for an emergency withdrawal.

A student seeking an Emergency or Hardship Withdrawal must consult the instructor and submit the online form by the deadline. Substantiating documentation (e.g., doctor's notes, court documents, death certificates) may be required at the request of the instructor.

Semester Withdrawal from the University

A student who desires to withdraw totally from all classes in a semester are advised to discuss their situation with their faculty advisor and/or IRIS prior to withdrawing.

Prior to the first day of the semester, a student may totally withdraw from Colorado Mesa University by dropping all classes via MAVzone. After the semester has begun, a student must submit the Semester Withdraw online form. See the calendar on the Important Dates website for course drop and withdraw details. Each course will be processed based on the start and end dates for the course session (full semester, late start, modular or other variable length). In the first 15% of the course session, the course will be dropped. Dropping all courses after the first day of the semester will result in a partial tuition assessment fee. After the drop and up to the two-thirds of the session, the withdrawn course will be denoted with a "W" on the transcript which will not be calculated in the grade point average. After two-thirds of the session, a grade of "F" will be assigned to the course which will be calculated in the grade point average. Courses that have been completed with an earned grade will retain the earned grade (include "F"s). A student with extenuating, non-academic reasons should review the add/drop/withdraw exception section.

Add/Drop/Withdraw Exceptions

Exceptions to add, drop or withdrawal deadlines are rare. To be considered, evidence of substantial and unexpected non-academic circumstances outside the student's control must be provided. To file an Enrollment Appeal, the student must supply a written request explaining the situation along with supporting documentation to the Registrar's Office within six months after the end of the semester being appealed. At the end of the six month period, the registration record is considered final and no further registration or tuition adjustments will be considered. The Enrollment Appeals Committee will review the provided documentation, course feedback from faculty, and related enrollment information pertinent to the request. Filing an appeal does not guarantee approval.

Contact Information

Registrar's Office
Lowell Heiny Hall, 4th Floor
970.248.1555

GENERAL UNDERGRADUATE ACADEMIC POLICIES

Academic Integrity

All faculty, administration, and students of Colorado Mesa University have a responsibility for establishing and fostering an understanding of the importance of academic integrity. Academic dishonesty includes but is not limited to representing work of others as your own without proper acknowledgment, giving or receiving assistance on exams, papers, projects, or assignments unless authorized to do so; and misrepresenting your identity or allowing others to do so. Incidents should be reported to the instructor of the course if possible, or contact the Academic Department Head. Actions may be taken as a result of academic dishonesty. For more details, see the Maverick Guide.

Academic Probation and Suspension

Good Standing

Signifies that the student is making satisfactory academic progress (see Academic Standards section) and is eligible to continue studies at Colorado Mesa University.

Academic Probation

Indicates a student is not in good standing and constitutes a warning to the student that the student's scholastic achievement needs improvement or suspension will result. Students will be placed on academic probation if their cumulative grade point average at Colorado Mesa University falls below the minimums listed under GPA minimum.

Upon being placed on academic probation, students are permitted to continue studies for one semester, during which time they are expected to improve their cumulative grade point average to the minimum required levels. Those who succeed will be removed from academic probation.

Students on academic probation will remain on academic probation until they raise their cumulative grade point average to the required level. Once on probation, a student must maintain a minimum semester grade point average of 2.00 to avoid being placed on academic suspension. Additionally, students with a cumulative Colorado Mesa University grade point average of 2.00 or lower will be limited to 15 credit hours per semester.

Academic Suspension

Indicates the student is not in good standing and represents a temporary, involuntary separation of the student from the University for a minimum of one semester for failure to meet minimum academic standards.

Following an academic suspension, a student must apply for readmission to Colorado Mesa University. For degree programs that do not have separate admission policies, the readmission to Colorado Mesa University is also readmission to the degree program as long as the degree still exists. For degree programs having admission policies over and above admission to Colorado Mesa University, the student must also reapply to the degree program.

A student may be suspended from and readmitted to Colorado Mesa University a maximum of two times. Academic suspension, when imposed, becomes effective immediately upon the recording of grades at the end of the semester or summer term.

The first suspension shall be for a period of one semester; i.e., a student suspended at the end of fall semester may not attend the following spring semester; a student suspended at the end of spring semester may not attend the following summer and fall semesters. A student suspended at the end of summer term may not attend the following fall semester.

The second suspension shall be for a period of two semesters (i.e., a student suspended at the end of fall semester may not attend the next spring or fall semester; a student suspended at the end of spring semester may not attend the following fall or spring semester). A student suspended at the end of summer term may not attend the following fall or spring semester.

If the suspension is due to substantial non-academic circumstances outside the student's control (i.e., major medical issues, serious car accident, etc.), the student may submit a letter of appeal with documentation to the Suspension Appeal Committee in the Registrar's Office. Deadlines and appeal instructions are outlined in the Registrar's Office website. Filing an appeal does not guarantee approval and the committee's decision is final.

Students may not enroll in any credit classes whatsoever (including summer term) during the period of suspension.

Academic Renewal

A student who re-enrolls at Colorado Mesa University following an absence of at least five years may be eligible for academic renewal. If academic renewal is approved, none of the course credits and grades earned at Colorado Mesa University prior to the five-year minimum absence will be used for meeting graduation requirements or in determining the student's grade point average.

Among the requirements to be eligible to apply/petition for "academic renewal" is that the student must have completed 24 academic course credits at Colorado Mesa University, excluding kinesiology courses and remedial courses below the 100 level, with a minimum grade point average of 3.00. The student must apply/petition in the Registrar's Office no later than the semester following the completion of these 24 semester credit hours. Matriculation and/or course completion at other institutions during the five-year period of absence has no bearing on the application/petition.

Academic Standards

The scholastic standing of a student at Colorado Mesa University is computed on the basis of all courses attempted at Colorado Mesa University (unless academic renewal has been approved). Grades awarded from any other institution will not be utilized in the grade point average (GPA) calculation.

Colorado Mesa University uses the four point system in computing the grade point average of its students. Under this system, a student receives four quality points for each semester hour of A; three points for each semester hour of B; two points for each semester hour of C; one point for each semester hour of D; and no quality points for an F. An example follows:

Hours Completed	Points Awarded
3 Semester Hours of A	12
3 Semester Hours of B	9
3 Semester Hours of C	6

3 Semester Hours of D	3
3 Semester Hours of F	0
15 Semester Hours	30

Thirty (30) points divided by 15 semester hours = 2.00 GPA

Calculation of Grade Point Average for Graduation

Only the grades and credits awarded at Colorado Mesa University will be used in calculating the student's grade point average for graduation. Grades awarded from any other institution will not be utilized in the grade point average calculation.

The specific discipline area program requirements must be completed as required by the appropriate academic department with a cumulative grade point average of 2.00 or higher.

Classification Status

A student is classified based on the number of semester hours successfully completed as follows:

Semester Hours Completed	Student Status
0 - 29	Freshman
30-59	Sophomore
60-89	Junior
90+	Senior

Course Repeat/Grade Improvement

Any course which is taken more than once for academic credit at Colorado Mesa University is done so only for "grade improvement" wherein academic credit is awarded only once and the best grade received is the one used to compute the student's cumulative grade point average and to fulfill requirements for the degree.

The lower grade will be excluded from the earned hours for the term taken and will be excluded from the GPA calculations. This may cause a negative effect on financial aid, Veteran benefits, athletic eligibility, scholarships, and other areas that use earned hours to determine student benefits. It is the student's responsibility to work with the appropriate departments to consider options and potential consequences prior to repeating the course.

Exceptions to this policy are DANC (performing dance), MUSL (music lessons) and MUSP (performing music) classes, each of which may be taken twice for academic credit; Independent Studies (a maximum of six semester credit hours may be taken for credit – see the Independent Study section in this catalog); and in some cases Topics, Practica, Seminars, Internships, Structured Research, and Cooperative Education. See program sheets and the appropriate department head or director for these exceptions.

Additionally, program-specific exceptions to retaking courses for grade improvement may exist regarding courses in the major. Students should check with the head of the academic department for their major to determine if there are any restrictions for repeating a course.

The option of repeating a course for grade improvement is available to a student only if the course they wish to repeat is still offered at Colorado Mesa University and is scheduled to be offered in the semester in which the student wishes to take it.

Courses taken at Colorado Mesa University may not be repeated at another university for improvement of the original grade and courses taken at another university may not be repeated at Colorado Mesa University for improvement of the original grade.

English and Mathematics Requirements

Colorado Mesa University students are required to complete the Essential Learning Core English and Mathematics requirements prior to exceeding 60 semester credit hours. Students should take the courses as freshmen. Those who need developmental courses before they are ready to enroll in the required courses should enroll in the developmental courses their first semester at Colorado Mesa University. Any required English and mathematics developmental courses must be completed with a "C" or higher. Students who are completing 60 hours of course work will have a registration hold placed on their account blocking them from enrolling in any additional courses until they have enrolled in the required English or Math courses. Students are encouraged to work with the Registrar's office staff to enroll in courses. Exceptions to this policy require the written permission of the appropriate department head (Language, Literature and Mass Communication or Mathematics and Statistics) or their designee.

GPA Minimum

Students are considered to be making "satisfactory progress" toward a degree if they attain a cumulative GPA consistent with the table listed below. Incomplete ("I") and In Progress ("IP") grades are tentative grades and until changed are not considered in computing either the cumulative grade point average or the grade point average for the particular semester concerned. "W" hours do not count as hours attempted or in the GPA. (See section on Withdrawal Procedures)

Cumulative Credit Hours	Cumulative GPA
0 – 15	1.70
16 - 30	1.80
31 - 45	1.90
46 and above	2.00

Students failing to achieve the minimum GPAs listed above will be placed on academic probation. The student will remain on probation until the minimum GPA is achieved, providing the student earns a minimum semester GPA of 2.00. If a student already on academic probation fails to earn a semester GPA of 2.00, the student will be placed on academic suspension. The student will be prohibited from further attendance at Colorado Mesa University for a minimum of one semester (see Academic Probation and Suspension section.)

A student must achieve a cumulative grade point average of 2.00 or higher to graduate at the certificate, associate, or baccalaureate level. Some programs have additional GPA requirements to remain in and graduate from that program. See Programs of Study section and subject program sheet for specifics.

Grading System

Grades at Colorado Mesa University are as follows:

Grade	Description
A	Excellent to superior
B	Good to excellent
C	Satisfactory
D	Passing but not satisfactory
F	Fail
I	Incomplete
IP	In progress
W	Withdraw
NC	No credit
P	Pass ("C" or higher)

Incomplete ("I") grades are temporary grades given to a student only in an emergency case and at the discretion of the instructor.

At the end of the semester following the one in which an "I" is given, the "I" becomes the grade that is submitted by the instructor to the Registrar's Office. If the instructor does not submit a grade by the deadline for that semester, the grade becomes an "F." For example, a grade of "I" given spring semester must be addressed by the end of the following fall term.

Extension of the time to complete work may be made in exceptional circumstances at the discretion of the instructor. A student with an "I" grade, however, may not change the "I" by enrolling in the same course another semester.

Grades of "P" are passing grades and are not included in the GPA. "P" grades at the undergraduate level are only used for zero credit hour courses, sub-100 level labs or non-traditional credits such as CLEP, AP, military credits, etc., and may be applicable toward graduation.

Honor Lists

President's List

Made up of those students who earn a GPA of 4.00 while enrolled in a minimum of 12 semester hours for a particular semester.

Dean's List

Includes students who achieve a grade point average of between 3.50 and 3.99 while enrolled in a minimum of 12 semester hours for a particular semester.

The lists are based on semester grades, not cumulative grade point averages. Regardless of grade point average, a student who receives a failing grade ("F") in any course is not eligible for the Dean's List.

To graduate with Honors or Distinction, the student's cumulative grade point average will be used in the determination of inclusion in the Honors/Distinction categories listed below. Each year during formal commencement ceremonies Colorado Mesa University recognizes the following categories of academic achievement:

- For Technical and Professional Certificates:
  - With Distinction—Technical/Professional certificate graduates with cumulative grade point averages of 3.50 to 3.74.
  - With High Distinction—Technical/Professional certificate graduates with cumulative grade point averages of 3.75 to 4.00.
- For Associate Degrees:
  - With Distinction—Associate degree graduates with cumulative grade point averages of 3.50 to 3.74.
  - With High Distinction—Associate degree graduates with cumulative grade point averages of 3.75 to 4.00.
- For Baccalaureate Degrees:
  - Cum Laude—Baccalaureate degree graduates with cumulative grade point averages of 3.50 to 3.74.
  - Magna Cum Laude—Baccalaureate degree graduates with cumulative grade point averages of 3.75 to 3.89.
  - Summa Cum Laude—Baccalaureate degree graduates with cumulative grade point averages of 3.90 to 4.00.

The grade point average for honors/distinction at commencement does not include final-term, in-progress courses. The ultimate honors/distinction recognition to appear on the permanent record/transcript will reflect the appropriate category based on the inclusion of the final-term course grades required for the completion of degree requirements.

Honor Societies

Alpha Chi

Membership in Alpha Chi is the highest academic honor which Colorado Mesa University can bestow upon its scholars. To be eligible for election, students must have completed at least 75 semester hours toward the baccalaureate degree with a GPA of 3.75 or better and be fully recognized by their faculty and department heads as having the qualities of character pertaining to the true scholar. Alpha Chi is the second oldest and second largest of those national scholastic honoraries, which elect members from all academic fields.

Alpha Phi Sigma

Alpha Phi Sigma is the national honor society in criminal justice. For membership in Alpha Phi Sigma, a political science major or other student who has completed at least four classes in criminal justice must maintain an overall GPA of 3.20.

Beta Beta Beta

Beta Beta Beta is the National Honor Society in biology at Colorado Mesa University. For full membership in Beta Beta Beta, a biology major must have completed at least three classes in biology and have a minimum GPA of 3.00. With these qualifications, a student may be nominated for membership.

Kappa Mu Epsilon

Kappa Mu Epsilon is an honor society for students of mathematics. Its chapters are located in colleges and universities of recognized standing which offer a strong mathematics major. The nominated and inducted members are selected from students of mathematics and other closely related fields who have maintained high standards of scholarship, have professional merit, and have attained academic distinction. The local chapter, Colorado Delta, is a working organization throughout the academic year. It functions as an integral part of the Department of Mathematics and Statistics of Colorado Mesa University.

Lambda Nu

Lambda Nu is the National Honor Society for the radiologic and imaging sciences. Its objectives are to foster academic success at the highest academic levels, promote research and investigation in the radiologic and imaging sciences, and recognize exemplary scholarship. Membership requires students complete one semester in the BSRS program and maintenance of a 3.0 GPA in program coursework.

Nu Kappa Chapter, Sigma Theta Tau International

Nu Kappa Chapter, Sigma Theta Tau International, recognizes achievement in nursing. The purposes of the society are to recognize superior achievement and leadership qualities, foster high professional standards, encourage creative work and strengthen commitment to the ideals and purposes of the profession. Students must have a minimum GPA of 3.00 and rank in the upper 35 percent of their class to be eligible for membership. Nurses from the community may also be nominated for membership if they have demonstrated marked achievement in nursing education, practice, research or publication.

Phi Alpha Rho Sigma Tau

Phi Alpha Honor Society is the international honor society for social workers and Rho Sigma Tau is the honors chapter at Colorado Mesa University. This honor society promotes humanitarian goals and ideas while fostering high standards of education and practice. To be eligible for membership, social workers must attain excellence in leadership, scholarship, and achievement across social work and be in the top 35 percent of their academic class.

Phi Alpha Theta

Phi Alpha Theta is the international honor society in history. The objective of this professional honor society is the promotion of the study of history through the encouragement of research, good teaching, publication, and the exchange of learning and thought among historians. To be eligible for membership, a student must have completed twelve or more hours of history with a minimum GPA in history of 3.10 and a minimum overall GPA of 3.00.

Pi Sigma Alpha

Pi Sigma Alpha is the national honor society in political science. For membership in Pi Sigma Alpha, a political science major or other student who has completed at least four classes in political science (three at the 300 or 400 level) must maintain an overall GPA of 3.00 and a 3.2 GPA in political science.

Psi Chi

Psi Chi, the national honor society in psychology, is open for membership to students with either a major or minor in psychology. Minimum qualifications for membership are as follows: rank in the top 35% of one's class with a minimum 3.00 overall GPA; 3.25 psychology GPA; completion of 9 semester hours in psychology; and completion of at least three semesters of university coursework. The purpose of Psi Chi is to promote and maintain excellence in scholarship in the field of psychology and to advance the science of psychology.

Sigma Gamma Epsilon

Sigma Gamma Epsilon, a national honor society for the earth sciences, has for its objectives the scholastic and scientific advancement of its members and the extension of friendship and assistance among colleges, universities, and scientific schools for the advancement of the earth sciences. Membership in the Zeta Nu Chapter of Sigma Gamma Epsilon is open to continuing Earth Science majors with at least twelve credit hours of Earth Science coursework completed with a minimum GPA of 3.00. Qualified students are reviewed and may be nominated each semester.

Sigma Pi Sigma

Sigma Pi Sigma is the national honor society in physics. For membership in Sigma Pi Sigma, a physics major or other student who has completed at least three classes in physics must maintain an overall GPA of 3.00 and a 3.25 GPA in physics. A qualifying student may then be nominated for membership by the combined physics faculty.

Sigma Tau Delta

Sigma Tau Delta, the national English honor society, endeavors to encourage, promote, and recognize scholarship and achievement in English language and literature. Membership is open to sophomore, junior, and senior English majors with a minimum GPA of 3.00 in English.

Upsilon Pi Epsilon

Upsilon Pi Epsilon is the national honor society for computer science.

Independent Study

Independent study permits the motivated student an opportunity to expand their body of knowledge beyond the scope of the standard curriculum. It endeavors to foster qualities of self-initiative, organizational skills, self-discipline and independent thinking. It is expected that the student will engage in intensive study and research of the topic.

Independent study does not satisfy essential learning requirements or specific course requirements. Independent study hours may be taken for elective credit. Independent study is available primarily to students at the junior and senior levels with a minimum GPA of 2.75 except in certain certificate and AAS programs.

The work is to be completed within one semester from the initiation date and is limited to a total of six or fewer semester credit hours taken at Colorado Mesa University.

The department head or director of the academic department issuing credit must approve any exceptions.

An Individualized Learning Contract, available from the academic department head, is to be initiated by the student desiring independent study in consultation with a supervising instructor. The contract must include justification, description, monitoring, and evaluating procedures, and the approval by the instructor and department head.

Further restrictions apply in some disciplines. Students wishing to take an independent study should check with the appropriate instructor and/or department head or director well in advance.

With permission of the instructor, students may register for regular classes but do the work independently, or on their own. This is not the same as "Independent Study." Students who have made prior arrangement with the instructor will still register for the regular course, and not for Independent Study.

Laboratories

Many courses at Colorado Mesa University have both lecture and laboratory components to a single course. The class and laboratory portions are technically treated as different courses with distinctive numbers and individual grades. A student is usually required to be concurrently enrolled in both class and laboratory. Credit applied toward graduation cannot be earned for the class or laboratory unless credit is earned in both.

Learning Progress Evaluation

The evaluation of a student's learning progress in a course is considered to be a planned and continuous process and consists of a variety

of activities including judgment, observation, testing, etc. Final examinations are a part of the evaluation process.

Article 13 of House Bill 1187, enacted in July of 1985 by the Colorado General Assembly, established that institutions of higher education in Colorado are to be held accountable for demonstrable improvements in student knowledge, capacities, and skills between entrance and graduation.

Students are required by Colorado Mesa University to take part in testing and other programs deemed necessary for compliance with this legislation. Students who do not abide by these requirements may be denied registration and/or graduation privileges. Portions of the assessment process may require time outside the normal class periods.

Maverick Milestone

The Maverick Milestone (ESSL 290) and Essential Speech (ESSL 200) courses will be taken concurrently on a student's first attempt unless special permission is granted by the Assistant Vice President for Academic Affairs (AVPAA) for Assessment and Accreditation to do otherwise. A student may take the courses separately only for purposes of grade improvement or when the student wishes to take ESSL 290 for elective credit after the successful completion of the Essential Learning Capstone requirement (ESSL 290 and ESSL 200). ESSL 290 and ESSL 200 are technically treated as distinct courses with distinct grades. However, credit applied toward graduation requirements cannot be earned for either ESSL 290 or ESSL 200 until satisfactory credit (passing) is earned in both.

A student who has completed more than 75 hours of coursework will have a Essential Learning Course Hold placed on their account and the opportunity for priority registration in the appropriate ESSL 200 and ESSL 290 course in a future term.

Non-Traditional Credit

Non-traditional credit can be earned from sources such as the following:

Advanced Placement Program

Students wishing academic credit or advanced placement for college level work done while enrolled in high school should take the appropriate College Board Advanced Placement examination. These exams are administered several times each year at numerous locations throughout the United States. The Registrar's Office will supply information concerning the scores required for earning academic credit in the various subject areas. For exams accepted by CMU visit the Registrar's Office website.

International Baccalaureate Program

Colorado Mesa University recognizes the International Baccalaureate Diploma Program and awards credit to qualifying high school students based on their examination scores. For exams accepted by CMU visit the Registrar's Office website.

Seal of Biliteracy for High School Diplomas

Colorado Mesa University recognizes students who have earned the Seal of Biliteracy credential while in high school, specifically those who have attained proficiency in both English and Spanish, by granting college credit. To be eligible for credit, students must submit an evaluation request form and official high school transcript showing the Seal of Biliteracy credential to the Registrar's Office within three years of high school graduation. Students will receive credit for two introductory (FLAS 111 and FLAS 112) and one intermediate (FLAS 213) Spanish language course. When the Seal of Biliteracy is earned in a language other than Spanish alternative options for credit may be determined by the department head of the Languages, Literature, and Mass Communication Department. Duplicate transfer credit will not apply toward program requirements for the same language and course(s) if credit has already been earned through another assessment that awards equivalent credit (i.e., CLEP, AP, or IB).

Military Credit

Qualified veterans and service members with a discharge under conditions other than dishonorable are eligible to receive credit. The credit for learning gained in the U.S. Military is based on the American Council on Education (ACE) Military Guide credit recommendations found on a Joint Services Transcript (JST) or an Air University/Community College of the Air Force Transcript (CCAF). Military credit is evaluated by the Registrar's Office when official copies of transcripts are received directly from JST or CCAF. Course equivalencies are based on the ACE recommendations, and current courses offered at Colorado Mesa University, with academic department input on specialization courses within the major. A maximum of 30 semester credit hours to be used toward lower and upper division courses may be accepted. Students with military credit should meet with the Veteran Services Office to discuss selecting a program of study that optimizes use of military credit for graduation. Contact the Registrar's Office for more information.

Credit by Examination and Department Challenge Exams

Students attending Colorado Mesa University and CMU Tech may earn college credit by examination in certain subject areas through the College Level Examination Program (CLEP) and DANTES Examination Program. The Registrar's Office will supply information concerning the scores required for earning academic credit in the various subject areas.

Credit may also be earned by subject matter tests offered through various departments at Colorado Mesa University and CMU Tech through departmental challenge exams. See the specific department for more information on possible challenge exam options. Students must be accepted to Colorado Mesa University before the approved CLEP and challenge exam credits will be recorded as transferable credit.

Credit for Prior Learning through Portfolio Assessment

The practice of awarding credit for college-level prior learning is based upon the belief that education which builds on, interprets, and incorporates past and present knowledge is the education that is most meaningful to the student. Colorado Mesa University and CMU Tech recognize that students may have gained college-level knowledge and competencies through their work and life experiences which can be incorporated into their academic programs.

The development of a portfolio to demonstrate competency acquired through work or other life experience can be pursued for many technical or applications-based areas. Students wanting to pursue this option are strongly encouraged to enroll in UNIV 105 Competency Portfolio Development. The portfolio will be produced in collaboration with faculty from the desired department. Students must obtain course syllabi and complete the application for prior learning credit to participate in the Portfolio Development Workshop. For policy details see the Credit for Prior Learning webpage.

Cooperative Education, Internships, Practica

Cooperative education/Internships are a working partnership in which an educational institution such as Colorado Mesa University or CMU Tech

joins with an employer in a structured relationship. The basic purpose is that of providing a means whereby a student can combine college study with a work experience which is under employer supervision to fulfill the total requirements of a particular educational program.

Cooperative education is a three-way partnership involving the student, the employer and the university. There is a great deal of difference between cooperative education and simply holding a job. Cooperative education is based on learning objectives which are related to the student's academic discipline and are established in cooperation with student, the employer, the faculty advisor, and others at Colorado Mesa University.

Typically, cooperative education is open to junior and senior students. Interested students should consult with their faculty advisor and academic department head or director. There are limits on the number of credits which will apply towards a degree. Graduate students should consult the Graduate Policies and Procedures section of this catalog.

Non-traditional Credit Guidelines

The faculty and department head of each department determine if, and under what conditions, non-traditional credit is allowed. The total combination of non-traditional credit that can be applied to a degree is limited by institutional academic residency requirements for a degree. Students can view residency requirements for their degree in the Programs A-Z section of this catalog or in the catalog for their program year. Additional guidelines may supersede department requirements if the degree is governed by accreditation standards. In the case of transfer, academic departments at CMU shall determine if the non-traditional credit awarded by the sending institution can apply to the student's major requirements. If allowed, the following limits apply:

1. Advanced Placement – Maximum semester credit hours for credit through AP is limited by the institutional residency requirements for a degree.
2. International Baccalaureate – Maximum semester credit hours for credit through IB is limited by the institutional residency requirements for a degree.
3. Seal of Biliteracy - Up to nine semester credit hours for FLAS 111, FLAS 112, and FLAS 213 may be awarded after official evaluation request form is received.
4. Military credits – A maximum of 30 semester credit hours may be used toward lower and upper division courses as deemed appropriate.
5. CLEP, DANTES & Credit by Examination/Department Challenge Exams – Maximum credit hours is limited by the institutional residency requirements for a degree. Students may not earn CLEP or DANTES credit in a class in which they have previously been enrolled including a class from which the student withdrew, so that the transcript shows a W, WP or WF. Students must receive approval and follow the procedure to challenge a course, including enrolling in that course. See the Registrar's Office for a copy of the procedure.
6. Credit for Prior Learning through Portfolio Assessment – Credit is limited by academic residency requirements and portfolio acceptance within the specific discipline. Additional guidelines may supersede department requirements if the degree is governed by accreditation standards. In the case of transfer, academic departments at CMU shall determine if the portfolio assessment credit awarded by the sending institution can apply to the student's major requirements. Other restrictions may apply. See the Credit for Prior Learning webpage for further details.
7. Cooperative education, Internships, Practica, etc. – A maximum of 15 semester credit hours may be used to satisfy the required academic semester credits for a baccalaureate degree and 6 semester credit hours may apply toward an Associate of Arts or Associate of Science degree. A maximum of 15 semester credit hours may apply toward the 40 upper division hour requirement. No restriction on the maximum number of semester credit hours above and beyond any degree requirement is intended. These restrictions do not apply to the Associate of Applied Science degree or technical certificate programs.

Student Appeals

Students have the right to appeal actions or sanctions (such as those relating to grades or academic dishonesty) and should begin the process by meeting with the course instructor. The Maverick Guide provides a detailed explanation of Academic Integrity, Academic Dishonesty, Student Appeals, Grade Appeals and related processes. The University provides that all student concerns, grievances, and appeals that are not covered under a specific policy may be directed either to the Office of the Vice President for Academic Affairs or to the Office of the Vice President for Student Services.

Student Complaint Policy

An official complaint is when a student alleges:

1. the institution has violated local, state, and/or federal law;
2. a breach of contract e.g., failure to meet institutional obligations as presented in a recruiting material document, application for enrollment or student housing, course syllabus, etc.; or,
3. a passive response by the institution to a complaint by a student that resulted in material damages to the student.

Disagreement with an administrative decision, or the outcome of an appeal of that decision, is not a complaint unless it alleges improper, unfair, or arbitrary treatment. The complaint must be in writing with an identifiable signature and is not already covered by another existing policy or process (see attached table).

A student wishing to file a complaint should do so as promptly as possible following the alleged violation, but by no later than February 15 for a concern occurring during the prior fall semester, June 15 for the prior spring semester, and September 15 for the prior summer term. The timely initiation of a complaint rests with the student. The complaint should be in writing and signed by the complainant or submitted electronically from a Colorado Mesa University student email address. The complaint should

1. describe the issue that is the basis for the complaint, including the steps have been taken to informally resolve the problem, and
2. include any relevant documents the student would like to be reviewed as part of the complaint process.

Depending on the nature of the violation, the complaint should be sent to the Office of the -

- Vice President for Academic Affairs or the Vice President for Community College Affairs if the concern is academic-related;
- Vice President for Finance and Administration if service-related;
- Vice President for Student Services if behavior or conduct-related; or
- Director of Human Resources if an alleged violation of discrimination in employment or education opportunity.

For the full complaint policy and links, go to the Student Complaint Policy on the Academic Affairs policies website.

Student Conduct

Colorado Mesa University is a community consisting of students, faculty, support staff, and administrators. The University does not attempt to define all "student conduct." It relies on students to assume the responsibility and obligation of conducting themselves in a manner compatible with the purpose of the University as an educational institution and the community as a place of residence. In addition to University rules and regulations, all students are subject to the same local, state, and federal laws as non-students and are beneficiaries of the same safeguards of rights as non-students.

The Student Code of Conduct can be found in its entirety published in the Maverick Guide. Questions relating to student conduct may be referred to the Office of the Vice President for Student Services, located on the fourth floor of Lowell Heiny Hall.

Student Load and Limitations

The normal student load is 15 semester hours (some disciplines require a higher number). The minimum load required for a student to be recognized as a full-time student is 12 semester hours. If students register for fewer than 12 semester hours, they are classified as part-time students.

Students receiving scholarships and/or financial aid are generally expected to complete 12 hours of credit courses each semester. In order to receive full Veteran's Administration financial benefits, veterans must be enrolled in 12 or more semester hours each semester of attendance, for the entire semester.

It is recommended that students in good academic standing limit their academic load to 18 semester hours or fewer. Students must obtain a signature from their advisor before attempting an overload between 19-21 semester hours in a regular semester or between 10-12 semester hours in a summer term. Students interested in enrolling for more than 21 hours in a regular term or more than 12 in a summer term must submit, in writing, their plan for success during the overload and obtain signature approval from their faculty advisor. Students must then obtain signature approval from the department head with oversight over their degree program and the Vice President for Academic Affairs (or designee). Students earning a cumulative Colorado Mesa University grade point average of 2.00 or lower will be limited to 15 credit hours in the fall/spring semesters.

Student Preparation/Academic Engagement for Class Meetings

In compliance with the requirements of the U.S. Department of Education and consistent with the expectations of the Colorado Commission on Higher Education, Colorado Mesa University defines a contact hour as 50 minutes. Thus a one credit hour, 15-week course equates to 750 minutes (15 contact hours) of academic engagement plus a minimum of 1500 minutes (30 hours) of student preparation.

An undergraduate student should expect to spend on an individual course a minimum of two hours outside the classroom for every hour in the classroom. The outside hours may vary depending on the number of credit hours or type of course. This expectation applies to all courses, regardless of wherever or however the instruction is delivered. More details are available from the faculty member or department office and in CMU's Curriculum Policies and Procedures Manual.

"Academic engagement" may include, but is not limited to, submitting an academic assignment, listening to class lectures or webinars (synchronously or asynchronously), listening to a guest speaker, taking an exam or quiz, completing a writing assignment, an interactive tutorial or computer-assisted instruction, attending a study group that is assigned by the institution, conducting research (e.g., for a project, play production, etc.), contributing to an academic on-line discussion, initiating contact with a faculty member to ask a question about the academic subject studied in the class, conducting laboratory work, completing an externship or internship.

"Student preparation" may include, but is not limited to, homework such as reading and study time, completing outside assignments and projects, practice for performance, writing lab reports, attending mandatory theatre and music performances, observing professional meetings (e.g., school board meetings for education courses), and attending faculty seminars and colloquia.

REQUIREMENTS FOR UNDERGRADUATE DEGREES AND CERTIFICATES

Students are expected to assume responsibility for planning their academic programs in accordance with University and department policy. Students are responsible for obtaining information about program requirements via this catalog in the Program A-Z (p. 832) section, or in the catalog for their program year. They are responsible for reviewing the specific requirements for the degree, minor, and/or certificate being pursued. For prior academic years, refer to the program sheets website and choose the appropriate catalog year. Students are urged to consult with their advisors when creating their graduation plans. The University assumes no responsibility for difficulties arising when students fail to establish and maintain contact with their faculty advisors or department heads. Students are ultimately and solely responsible for knowing the requirements for a particular degree/minor/certificate and for fulfilling those requirements.

Contents

- Requirements for Degrees (p. 73)
  - Requirements for Baccalaureate Degrees (p. 74)
    - Essential Learning, Lower- and Upper-Division Requirements (p. 77)
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- Colorado Statewide Guaranteed Transfer Courses (p. 83)

Contact Information

Registrar's Office
Lowell Heiny Hall, Fourth Floor
970.248.1555

Requirements for Degrees

Some requirements may vary with the program and academic department. Students must abide by the rules set forth in the specific program sheet as listed in Programs A-Z (p. 832). For prior academic years, refer to the program sheets website and choose the appropriate catalog year.

A useful advising tool for students is DegreeWorks, an online degree audit reporting tool available via MAVzone. DegreeWorks utilizes the published program sheets and the graduation requirements printed in the catalog to create an electronic list of required courses and options in each degree. It is the student's responsibility to utilize DegreeWorks and consult with their advisor in order to plan out their progress toward graduation. Any discrepancies in requirements should be reported to the Registrar's Office.

Graduation Checklist and Commencement Deadlines

Graduation documents are due the semester prior to completion of all coursework and are available through the Registrar's Office. Candidates for all degrees must accomplish the following:

1. Meet with their advisor to create the final graduation plan which outlines how all requirements will be met by the desired graduation date. Depending on department requirements, the plan should be entered on the DegreeWorks Plans tab titled "Final Graduation Plan" or be submitted on a "Graduation Planning Sheet" form to the advisor and the Registrar's Office. The plan must be approved by the advisor either in DegreeWorks or a signature on the planning sheet.
2. Submit the Intent to Graduate form to the Registrar's Office by:
   - October 1 for May graduates.
   - March 1 for December graduates.
3. Register for all needed courses and complete all requirements for each degree sought.

The Registrar's Office will use the DegreeWorks report to verify degree progress for all students. It is the student's responsibility to discuss any questions or concerns from their DegreeWorks reports with their advisor or academic department head. Perceived DegreeWorks errors should be reported to the Registrar's Office for official investigation.

Commencement Ceremony Requirements and Deadlines

Students are eligible to participate in a commencement ceremony based on which semester they complete their graduation requirements. It is the student's responsibility to ensure that they are enrolled in the necessary courses or have a plan on file with the Registrar's Office using the "Graduation Planning Sheet" or DegreeWorks Plan which outlines how all requirements will be met. In the four months prior to the ceremony, students must be on track to complete all requirements to remain eligible to participate in the commencement ceremony.

Students who complete graduation requirements during the:	Are eligible to participate in the:
Summer semester[1]	December commencement
Fall semester	December or May commencement
Spring semester	May commencement

[1] Summer graduates may participate in the May ceremony only if they are registered by April 15 for one or more summer courses that do not exceed six credits or an internship course that does not exceed 12 credits. The student must be able to finish the summer coursework by the end of the summer term.

Declaring a Major

The major students list on their application is considered for admission purposes. Once admitted, students may change their major. In order to be admitted/declared into the major, the major must be accepting students, and students must meet the requirements to be admitted to the degree. Some majors have additional admission requirements. Students must visit the department for more information. Students with an undeclared major are required to declare a major or meet with an academic advisor prior to registration.

Students should submit a Major/Minor Change form to request changes to declared majors or minors. The form is routed to the academic department associated with the desired major or minor. Once processed, the student will receive an email noting approved changes and any assigned faculty advisor(s). In addition, DegreeWorks will be updated to show the new major, minor, and advisor information. Questions regarding the process should be routed to the administrative assistant in the academic department for the major/minor.

Applicable Catalog and Degree Requirements

Students must follow the Colorado Mesa University graduation requirements from the catalog of the same academic year as the program sheet for the declared major. This is true provided that

1. students remain "continuously enrolled" until graduation and
2. the degree, emphasis or certificate area is still accepting students into the program when students officially declare their majors.

Students shall be considered to be "continuously enrolled" if there is no interruption in enrollment of more than one semester at any given time (excluding summer sessions). If an interruption in enrollment occurs so that students are no longer "continuously enrolled" as described above, the program sheet and catalog requirements applicable at the time of reenrollment shall apply.

If a candidate for a degree is unable to meet the major requirements because of some unforeseen circumstance, it is the candidate's responsibility to petition for an exception from their faculty advisor or department head.

Assessment of Student Learning

Colorado Mesa University is committed to providing quality education for students across all disciplines through a variety of campus activities. One means of continuously improving the quality of University offerings is through identifying specific learning outcomes that reflect what a graduate should know and be able to do, and then assess how well students meet those outcomes.

Assessment of student learning in academic programs is one of the processes faculty use to measure student progress in the knowledge and skills necessary to be successful. All CMU students are expected to engage in assessment activities, such as submitting course assignments, taking examinations, developing e-portfolios and/or completing surveys. These assessments center on specialized knowledge and applied learning in each major, in addition to intellectual skills that include communication, computation, and critical thinking. Student learning outcomes specific to each program of study can be found on the relevant program sheet and supporting course syllabi. Beyond the classroom, a second part of assessment involves student learning in co-curricular activities such as student life or service learning.

CMU students should plan to participate in assessment efforts and provide honest feedback that will assist the University to enhance the quality of its programs. More specifically, learning outcome data are compiled to assist faculty and staff members in making improvements in majors at all levels, Essential Learning (General Education) coursework, and student life programming. Finally, aggregated assessment results are reported to members of the CMU community, accreditation organizations, and state and federal agencies.

Deficiencies

All academic and financial deficiencies must be removed (i.e., incomplete grades and/or unpaid financial obligations) before the degree or certificate is conferred.

Final Credit Requirements Taken at Another University

Colorado Mesa University generally accepts academic credits from regionally accredited colleges and universities. When a student intends to earn a Colorado Mesa University degree, but the final credits for completing that degree program are earned at another institution, the following restrictions apply:

1. Specific approval of the proposed institution and courses must be given by the appropriate academic department head and the Office of the Registrar at Colorado Mesa University during the time of the student's last enrollment at Colorado Mesa University, and the student must receive a grade of "C-" or higher in each course. Some departments may have higher requirements.
2. No more than 30 semester hours of final credit will be accepted in transfer. It is the responsibility of the student to request official transcripts of their work from other institutions to be sent to the CMU Office of the Registrar.

Requirements for Baccalaureate Degrees

- Bachelor of Applied Science (BAS)
- Bachelor of Arts (BA)
- Bachelor of Business Administration (BBA)
- Bachelor of Fine Arts (BFA)
- Bachelor of Music (BM)
- Bachelor of Music Education (BME)
- Bachelor of Science (BS)
- Bachelor of Science in Nursing (BSN)
- Bachelor of Science in Radiologic Sciences (BSRS)
- Bachelor of Social Work (BSW)

Credit Hour Distribution

Colorado Mesa University offers baccalaureate degrees in the traditional liberal arts and sciences disciplines and professional fields of study. Candidates for baccalaureate degrees must complete, in general, a minimum of 120 semester credit hours for a baccalaureate degree program. The distribution of the credit hour requirement is:

- Essential Learning (General Education):
  - Essential Learning Core Courses: 31 semester credit hours
  - Essential Learning Capstone: 4 semester credit hours
    Consists of the Maverick Milestone and Essential Speech (co-requisites)
- Wellness Requirement:
  - 2 – 3 semester credit hours (varies by major)
- Major Requirements:
  - 36 – 48 semester credit hours in the program discipline; some professional programs may exceed 60 hours when including foundation courses
- Degree Category Requirements:
  - 3 – 6 semester credit hours
    - BS and BSN degrees require 3 semester credit hours.
    - BA and BSW degrees require 6 semester credit hours.
    - Some BFA degrees require 3 or 6 semester credit hours. This requirement does not apply to the BAS, BBA, and some BFA degrees. Select the chosen program of study in Programs A-Z (p. 832) for more information.
- Unrestricted Electives:
  - 0 – 36 semester credit hours

Students may not use the same course to satisfy more than one category within a degree. Program requirements (p. 832) indicate the specific number of semester hours that must be earned in courses numbered 300 or higher. For most baccalaureate degree programs, students need 40 credits earned in 300-level courses or higher in order to graduate. Students must achieve a cumulative grade point average of 2.00 or higher for all courses taken and for the courses which comprise the area of the major field of study.

The program requirements, found under Programs A-Z (p. 832), list all details for the degree program for the catalog under which students are working. For students who declared a major prior to the 2018-19 academic year, details applicable to their program of study can be found under Program Sheets for Previous Years. These students should check with an advisor to make sure they are referencing the correct program sheet/program requirements. All students should refer to DegreeWorks to monitor their progress and ensure that requirements are met. Throughout their time of study, students should work closely with their faculty advisors to meet graduation requirements. Students are ultimately and solely responsible for knowing the requirements for a particular degree and for fulfilling those requirements.

Using Graduate Courses for Undergraduate and Graduate Degree Credit

With the consent of the instructor and the Graduate Program Director/Coordinator, students with more than 90 earned credit hours and a cumulative GPA of 3.50 or greater will be allowed to take up to 6 total credit hours of graduate credit and apply those credits to their undergraduate degree. Acceptance of credits is contingent on approval of individual departments. Those same credits may subsequently be applied toward the completion of a CMU graduate degree. If approved, the appropriate forms will need to be submitted to the Registrar's office prior to completion of the course(s) to ensure proper assignment of credits to both the undergraduate and graduate transcripts. Note that any grades earned in these courses will affect the student's undergraduate and graduate GPA.

Academic Residency for Baccalaureate Degrees

To receive a baccalaureate degree from Colorado Mesa University, students must complete a minimum of 30 of the last 60 semester hours of credit through CMU with at least 15 semester hours in major discipline courses numbered 300 or higher.

Degree-Specific Requirements and Degree Category

The requirements below are separate from and in addition to the Essential Learning requirements (i.e., the same course cannot be used for Essential Learning, degree category and/or other major requirements) and are included in the foundation courses or major courses. When applicable, the requirements are a part of a major's requirements and must be completed with a grade of "C" or higher.

Bachelor of Arts and Bachelor of Fine Arts

Candidates for the BA degrees shall complete six sequential semester credit hours of one classical or modern foreign language with a grade of "C" or higher. At the discretion of the foreign language faculty and with the approval of the department head, a student may satisfy this requirement by demonstration of equivalent competency. Students with two or more years of high school coursework in a foreign language may

1. see the department head for placement in a higher level class;
2. receive credit by successful completion of a CLEP test in that language; or
3. pursue another language.

Bachelor of Fine Arts degrees may or may not have a one or two semester foreign language requirement as described above. Select the chosen program of study in Programs A-Z (p. 832) for more information..

Bachelor of Music

The Bachelor of Music degrees are designed for those students who desire a professional career in music performance or the music business/industry.

This degree is a PTO program. See the description for PTO programs below.

Bachelor of Music Education

The Bachelor of Music Education degree provides students with the knowledge, skills, and musicianship to become a successful music educator. Studies in music theory, history, literature, ensemble performance, and applied study give the student a strong foundation on which to build a successful teaching career.

This degree is a PTO program. See the description for PTO programs below.

Bachelor of Science and Bachelor of Science in Nursing

Candidates for the BS and BSN degrees shall complete at least three semester credit hours of the following: CSCI 110 or higher or STAT 200 or

higher, or a math course at a level beyond the Essential Learning requirement. Candidates must complete each of these courses with a grade of "C" or higher. At the discretion of the Math and Statistics faculty and with the approval of the Math and Statistics department head, a student may satisfy the requirement of their program by a demonstration of equivalent competency.

Bachelor of Social Work

Candidates for the BSW degree must meet the same foreign language requirements as those listed for the BA (see above).

Bachelor of Applied Science

In order to obtain a Bachelor of Applied Science (BAS) degree from Colorado Mesa University, the following requirements apply. All BAS students are required to meet with the department BAS advisor in order to plan and schedule all classes.

- Formal admission to a BAS program requires completion of the appropriate AAS degree from an accredited institution. Any exceptions to this must be approved in advance by the department BAS advisor and the department head.
- In order to meet course prerequisites, additional courses may be required. Please meet with the BAS advisor to insure all prerequisites are completed.
- If a student decides to pursue a four-year degree that is not the BAS, technical credits transferred from another institution will be counted only as electives, with the number of hours determined through a course evaluation completed by the academic department head in collaboration with the CMU's Registrar's Office.
- Students who transfer in credits from a recognized technical program must complete the requirements for an AAS degree before their technical training will be recognized for credit in the appropriate BAS program. Applicants from a non-regionally-accredited institution must meet all Essential Learning program and total credit hour requirements from a regionally-accredited institution prior to graduation from Colorado Mesa with a BAS program.
- The requirement of at least 33 hours of upper division coursework must be met by all students seeking a BAS degree, with the exception of a BAS awarded in an interdisciplinary program.
- Students are required to participate in exit examinations, assessments, and any other programs deemed necessary to comply with the college accountability requirement.

A list of specific requirements for each BAS degree is available from the appropriate academic department head of the BAS program and the Transfer Resources section of the University's web site.

Professional, Technical or Other (PTO) Programs

A professional, technical or other baccalaureate degree is one wherein the curriculum must align with the requirements or recommendations of a nationally recognized accrediting, licensing, certifying, or professional organization in order to maintain the academic integrity of the program. Any program which is proposed to be in the PTO category must identify the accrediting, licensing, certifying, or professional organization with which it aligns. The number of hours required for a major in a PTO degree may exceed 60 hours when verified by the Undergraduate Curriculum Committee to be necessary to meet degree requirements which are set by the identified accrediting, licensing, certifying, or professional organization. For more information on specific PTO program requirements, students should refer to the requirements for the degree that they are seeking. See below for a list of approved PTO programs.

- BS Accounting
- BS Sport Management
- BS Computer Information Systems
- BS Construction Management
- BS Mechanical Engineering Technology
- BSW Social Work
- BM Music with Elective Studies in Business
- BM Music Performance
- BME Music Education K-12
- BA Kinesiology
- BAS Public Administration
- BAS Radiologic Technology
- BAS/BBA Business Administration
- BAS Computer Information Systems
- BAS Criminal Justice – Post Academy
- BAS Hospitality Management
- BAS Interdisciplinary Studies
- BFA Graphic Design
- BFA Animation, Film, Photography, and Motion Design
- BFA Dance
- BFA Theater
- BFA Art
- BSN Nursing
- BSRS Radiologic Science
- BA Elementary Education
- BA Secondary Education
- BA K-12 Education
- BA Early Childhood Education
- BS Secondary Education
- BFA K-12 Education

Requirements for Teacher Licensure

Students preparing to teach in the public schools (elementary, secondary, K-12) must contact both the Colorado Mesa University Center for Teacher Education regarding state licensure requirements and the appropriate department head regarding program requirements for the major. It is crucial that students seeking teacher licensure plan their schedules with their advisors early in their academic careers, preferably the first semester of their work at Colorado Mesa University.

Teacher licensure is a separate process and must be pursued in addition to a baccalaureate degree. See the section on Center for Teacher Education.

Additional Options While Earning a Baccalaureate Degree

Multiple Concentrations within One Degree

Under many of the baccalaureate degrees, concentrations are available. Before graduating with a baccalaureate degree, a student may complete requirements for one or several of the concentrations as desired. However, after a degree has been awarded, if courses are taken that

would have satisfied requirements for an additional concentration, the additional concentration cannot be added to the degree already awarded.

Students wishing to receive multiple concentrations within one degree must satisfy all the requirements for each concentration. Only one degree will be awarded. All concentrations must be declared on the petition to graduate.

Second Baccalaureate Degree

A student seeking a second baccalaureate degree at Colorado Mesa University must earn a minimum of 30 additional semester hours of credit, at least 18 of which must be in courses numbered 300 and higher. None of these 30 credits may have been used toward another baccalaureate degree, and all must be earned at Colorado Mesa University. In addition, the student must satisfy all specific program requirements of the new degree and concentration as well as any graduation requirements not previously met (e.g., the degree category). Students with a baccalaureate degree who are pursuing a second baccalaureate degree from Colorado Mesa University are exempt from the Wellness and Essential Learning Capstone requirements.

Requirements for a Minor

A minor is an approved program of study to broaden the scope of the educational experience and can be awarded with any baccalaureate degree. A minor, if chosen, must be outside the major field of study. Students are urged to consult a faculty advisor and to discuss program requirements (p. 832) for the minor sought. A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree. A student may earn up to five minors with any bachelor's degree at Colorado Mesa University.

A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites. Since a minor is optional, courses taken to satisfy Essential Learning, major requirements, or electives can be counted toward the minor if applicable. At least 33 percent of the minor must be in courses numbered 300 or above and at least 25 percent of the classes must be taken at Colorado Mesa University. A cumulative grade point average of 2.00 or higher for the courses used for the minor must be achieved.

Essential Learning, Lower- and Upper-Division Requirements

Learn... Express... Do...: CMU's Integrated Curriculum Model for a Baccalaureate Degree

The broad philosophy that underlies CMU's curriculum is Integrated Learning. This approach expects students to draw upon knowledge and skills from courses across disciplines, critically evaluate information, and apply what they have learned in response to a problem, argument or issue. Colorado Mesa University expects that students will graduate with a well-developed capacity for analytical thought and a heightened awareness of their world. In the university learning environment, students are expected to embrace great ideas and expressions of creative energy that define the human condition. CMU baccalaureate students explore and integrate learning from a variety of fields of knowledge while also focusing their attention on a particular area of interest. This combination produces graduates with an adaptable skill set for use throughout their personal and professional lives.

Upon graduation, a CMU baccalaureate student will be able to:

- Construct a summative project, paper, or practice-based performance that draws on current research, scholarship and/or techniques, and specialized knowledge in the discipline (specialized knowledge/applied learning);
- Analyze data critically, reason logically, and apply quantitative analysis methods correctly to develop appropriate conclusions (quantitative fluency);
- Make and defend assertions about a specialized topic in an extended well-organized document and an oral presentation that is appropriate to the discipline (communication fluency);
- Describe reasoned conclusions that articulate the implications and consequences for a particular decision by synthesizing information and methodologies (critical thinking);
- Reflect on and respond to ethical, social, civic, and/or environmental challenges at local, national, and/or global levels (personal and social responsibility);
- Find relevant sources of information, evaluate information critically, and apply the information appropriately and effectively to specific purposes (information literacy).

Essential Learning Lower Division Requirements

Essential Learning Overview

At the lower division level, success in CMU's baccalaureate programs requires participation in the Essential Learning curriculum, which at many institutions is identified as General Education. This change in CMU's description of its lower division curriculum to Essential Learning represents a faculty and staff belief that these lower division courses form an important foundation for all majors in which students begin development of skills in written and oral communication, quantitative literacy and critical thinking. These courses also allow students to integrate what they learn in one course with that from others. The ability to integrate and apply learning and the development of the critical skills

listed above are essential competencies for graduates to be successful in addressing the challenges of the twenty-first century.

The Essential Learning Program has two primary components: the Essential Learning Core (31 semester credit hours) and the Essential Learning Capstone (4 semester credit hours). The applicability of these components is described in the following section.

The Essential Learning Core provides students with a foundation in the arts and sciences, based on a range of courses in mathematics, natural sciences, fine arts, humanities and social sciences that complements and enhances a student's academic major. The exposure to multiple fields of study promotes intellectual respect for diverse people, ideas and cultures. This path of study develops skills critical to academic, personal and professional success while cultivating a passion for lifelong learning. Essential Learning courses, therefore, provide important tools that enable students to fully realize their potential at the baccalaureate level. When students have completed the Essential Learning Core, they possess enhanced abilities in critical thinking, quantitative analysis and communication that they will continue to develop in their academic major.

The Essential Learning Capstone culminates in the completion of the Maverick Milestone (3 credit hours) and its co-requisite, Essential Speech (1 credit hour). Building on the Essential Learning Core, the Maverick Milestone is a 200-level interdisciplinary, topics-oriented, writing-intensive course designed to help students develop the ability to approach problems and evaluate ideas using more than one set of intellectual tools. Students must enroll simultaneously in the Milestone's co-requisite, Essential Speech, which provides students with fundamental tools for verbally presenting ideas and information learned in the Milestone. Baccalaureate-seeking students are required to meet the Maverick Milestone/Essential Speech requirements in the time frame when they have earned between 45 and 75 credit hours. This pair of courses is an important transition between Essential Learning courses and upper-division work in the major.

Thus, upon completion of CMU's Essential Learning program, a student will be able to:

- Produce effective arguments and summaries in written English.
- Present information effectively in spoken English.
- Demonstrate quantitative literacy.
- Critically examine and evaluate an argument.
- Demonstrate investigative and analytical thinking skills to solve problems.
- Select and use appropriate information or techniques in an academic project.
- Construct an academic project using techniques and methodologies from multiple disciplines.

As students transition into upper division courses, they will focus more on specialized knowledge associated with their major. The on-going emphasis on developing written and oral communication, quantitative literacy and critical thinking skills will strengthen the students' problem-solving skills and integrate ways of thinking from various areas of study. By meeting the student learning outcomes for the lower-division coursework, students will enjoy an enriched learning experience in their major while also preparing for their chosen career paths.

Applicability of the Essential Learning Program Requirements

The Essential Learning Core applies to baccalaureate and associate degrees. The only exceptions to the Essential Learning Core requirements are:

- students who have earned a baccalaureate degree, Associate of Arts degree, or Associate of Science degree from a regionally accredited institution.
- students who have successfully completed the entire Colorado Core Transfer Consortium General Education Curriculum at another institution prior to transferring to CMU/CMU Tech.

In both these cases, the Essential Learning Core is complete unless specific requirements are noted in the Programs A-Z (p. 832) section for each program. The student must still meet this coursework as well as any other specified lower division requirements as part of the degree program.

The Associate of Applied Science (AAS) degree includes 15 credit hours of Essential Learning Core courses as outlined on the program sheet, which can be found under Programs A-Z (p. 832).

The Maverick Milestone and Essential Speech requirement only applies to baccalaureate degrees. Once a certificate or associate degree-seeking student makes the transition to a baccalaureate program, the Essential Learning Capstone requirement takes effect and should be completed in the earliest possible semester after which 45 credit hours has been earned.

Exceptions to the Maverick Milestone and Essential Speech requirements include:

- Students who have previously earned a baccalaureate degree, earned an Associate of Arts or Associate of Science degree from another institution, as well as those who have successfully completed the entire Colorado Core Transfer Consortium General Education Curriculum at another institution prior to transfer to CMU/CMU Tech, are exempt from the Maverick Milestone, Essential Speech and Wellness course requirements.
- Speechmaking/Public Speaking courses (CMU's SPCH 102), whether taken from CMU or transferred from another institution, will be accepted in lieu of the ESSL 200 requirement.

All students should review the program sheet for their major, provided in Programs A-Z (p. 832), and consult with an academic advisor as they consider their course selection.

Essential Learning Core Course Requirements

Each student must complete the 31 minimum semester credit hours Essential Learning Core requirement as specified by the Colorado Mesa University faculty. For specific course requirements and choices, refer to the section titled "Core Courses Approved for the Essential Learning Program Requirements."

English: 6 semester credit hours

Colorado Mesa University students are required to complete English composition for the Essential Learning requirement prior to exceeding 60 semester credit hours, preferably during their first year of enrollment. Those who are advised to enroll in developmental courses should do so before taking the required 100-level courses, preferably in their first semester at CMU.

English courses must be taken in sequence and students are encouraged to take them in consecutive semesters. Students must earn a "C" or higher in ENGL 111 before taking ENGL 112 or ENGL 219, and students must earn a "C" or higher in ENGL 112 to enroll in ENGL 219. Some programs may require a minimum grade of a "B" in all English Essential Learning courses.

Students who are completing 60 hours of course work will not be permitted to enroll in any additional courses until they have passed the required English courses. Exceptions to the policy require the written permission of the appropriate academic department head for English or designee.

Mathematics: 3 semester credit hours

Colorado Mesa University students are required to complete mathematics for the Essential Learning requirement prior to exceeding 60 semester credit hours, preferably during their first year of enrollment. Those who are advised to enroll in developmental courses should do so before taking the required 100-level courses. All prerequisite mathematics courses, as well as the Essential Learning mathematics course, must be completed with a "C" or higher.

Students who are completing 60 hours of course work will not be permitted to enroll in any additional courses until they have passed the required courses. Exceptions to the policy require the written permission of the appropriate academic department head for Mathematics or designee.

For specific mathematics requirements, students should complete the courses specified on the program sheet, which can be found under Programs A-Z (p. 832). For all majors, the mathematics requirement and any required mathematics prerequisite can only be met with a grade of "C" or higher.

History: 3 semester credit hours

Choose from selected history courses.

Three additional hours of history may be chosen to fulfill the Humanities requirement below.

Humanities: 3 semester credit hours

Choose from selected English, history, language, mass communication, philosophy and speech courses.

Social and Behavioral Science: 6 semester credit hours

Choose from selected archaeology, anthropology, computer science, economics, geography, political science, psychology, sociology and speech courses.

Fine Arts: 3 semester credit hours

Choose from selected art, dance, fine arts, music and theatre courses.

Natural Sciences: 7 semester credit hours

Choose from selected biology, chemistry, environmental sciences, geology and physics courses.

At least one of the two Natural Sciences courses must have an associated lab or field component, and both the lecture and lab must be taken in all courses listed which have both, if Essential Learning credit is to be received. Courses that fit this lecture and laboratory requirement are marked with an asterisk in the Natural Sciences list for Essential Learning.

Core Courses Approved for the Essential Learning Program Requirements

The following courses are approved to meet the Essential Learning Core requirements for baccalaureate and associate degrees from Colorado Mesa University. Students may select their Essential Learning courses from the list below according to their own preference unless specific Essential Learning Core courses are prescribed for their major or excluded after consultation with their advisor. Courses used to meet the requirements for the major cannot be used to fulfill the Essential Learning requirement. Essential Learning courses, however, can be double-counted between the major and minor or between majors. Requirements for a specific major can be found under Programs A-Z (p. 832).

Essential Learning Core course requirements may also be met with an appropriate AP, CLEP or DANTES test if the test has been approved by the appropriate academic department at Colorado Mesa University. Credit may also be awarded via the Credit for Prior Learning option. See Non-Traditional Credit section in this catalog for more information.

Most CMU Essential Learning Core courses below are approved by the Colorado Department of Higher Education for statewide guaranteed transfer, as part of the gtPathways program (see section on "Colorado Department of Higher Education Statewide Guaranteed Transfer Courses").

Code	Title	Semester Credit Hours
English [1]		
Select one of the following:		6
Option 1		
ENGL 111	English Composition I-GTCO1	
ENGL 112	English Composition II-GTCO2	
Option 2		
ENGL 112	English Composition II-GTCO2	
ENGL 219	Introduction to Professional Writing-GTCO3	
Mathematics [2]		
MATH 110	Mathematical Investigations-GTMA1	3
MATH 113	College Algebra-GTMA1	4
MATH 113R	College Algebra with Review-GTMA1	5
MATH 119	Precalculus Mathematics-GTMA1 [7]	5
MATH 131	Applied Calculus-GTMA1	4
MATH 151	Calculus I-GTMA1	5
MATH 205	Elements of Mathematics II-GTMA1	3
History		
HIST 101	Western Civilization I-GTHI1	3
HIST 102	Western Civilization II-GTHI1	3
HIST 131	United States History I-GTHI1	3
HIST 132	United States History II-GTHI1	3
HIST 225	History of Colorado-GTHI1	3
Humanities		
ENGL 131	Western World Literature I-GTAH2	3
ENGL 132	Western World Literature II-GTAH2	3
ENGL 150	Introduction to Literature-GTAH2	3
ENGL 222	Mythology-GTAH2	3
ENGL 254	Survey of English Literature I-GTAH2	3
ENGL 255	Survey of English Literature II-GTAH2	3

ENGL 261	Survey of American Literature I-GTAH2	3
ENGL 262	Survey of American Literature II-GTAH2	3
FLAS 211	Second-Year Spanish I [3]	3
FLAS 213	Spanish Conversation and Grammar [3]	3
HIST 101	Western Civilization I-GTHI1	3
HIST 102	Western Civilization II-GTHI1	3
HIST 131	United States History I-GTHI1	3
HIST 132	United States History II-GTHI1	3
HIST 225	History of Colorado-GTHI1	3
MASS 110	Mass Media: Impact and History-GTAH2	3
PHIL 105	Critical Thinking-GTAH3	3
PHIL 110	Introduction to Philosophy-GTAH3	3
PHIL 120	Ethics-GTAH3	3
PHIL 130	Philosophy of Religion-GTAH3	3
SPCH 102	Speechmaking [3]	3
Social and Behavioral Sciences		
ANTH 202	Introduction to Anthropology-GTSS3	3
ANTH 220	Principles of Archaeology-GTSS3	3
ANTH 222	World Prehistory-GTSS3	3
ANTH 231 & 231L	Survey of Biological Anthropology-GTSS3 and Survey of Biological Anthropology Laboratory-GTSS3	4
ANTH 240	Cultural Anthropology [3]	3
CSCI 100	Computers In Our Society [3]	3
ECON 201	Principles of Macroeconomics-GTSS1	3
ECON 202	Principles of Microeconomics-GTSS1	3
GEOG 102	Human Geography-GTSS2	3
GEOG 103	World Regional Geography-GTSS2	3
POLS 101	American Government-GTSS1	3
POLS 151	Introduction to Political Ideas [3]	3
POLS 261	Comparative Politics-GTSS1	3
POLS 270	World Politics [3]	3
PSYC 150	General Psychology-GTSS3	3
PSYC 233	Human Growth and Development-GTSS3	3
SOCI 101	Introduction to Lesbian, Gay, Bisexual, and Transgender Studies-GTSS3	3
SOCI 102	Introduction to Women's and Gender Studies-GTSS3	3
SOCI 120	Technology and Society-GTSS3	3
SOCO 144	Marriage and Families-GTSS3	3
SOCO 260	General Sociology-GTSS3	3
SOCO 264	Social Problems-GTSS3	3
SPCH 101	Interpersonal Communication [3, 4]	3
Fine Arts		
ARTE 101	Two-Dimensional Design-GTAH1	3
ARTE 102	Three-Dimensional Design-GTAH1	3
ARTE 103	Digital Art and Design-GTAH1	3
ARTE 115	Art Appreciation-GTAH1	3
ARTE 118	History of Art, Prehistory to Renaissance-GTAH1	3
ARTE 119	History of Art, Renaissance to Present-GTAH1	3
DANC 115	Dance Appreciation-GTAH1	3
FINE 101	The Living Arts-GTAH1	3
MUSA 220	Music Appreciation-GTAH1	3
MUSA 222	History of Country Music-GTAH1	3
MUSA 266	History of Popular Music-GTAH1	3
MUSA 267	Jazz History and Literature-GTAH1	3
THEA 141	Theatre Appreciation-GTAH1	3
THEA 145	Introduction to Dramatic Literature-GTAH1	3
Natural Sciences		
BIOL 101 & 101L	General Human Biology-GTSC1 and General Human Biology Laboratory-GTSC1 [5]	4
BIOL 105 & 105L	Attributes of Living Systems-GTSC1 and Attributes of Living Systems Laboratory-GTSC1 [5]	4
BIOL 108 & 108L	Diversity of Organisms-GTSC1 and Diversity of Organisms Laboratory-GTSC1 [5]	4
BIOL 250 & 250L	Introduction to Microbiology-GTSC1 and Introduction to Microbiology Laboratory-GTSC1 [5]	4
CHEM 100	Chemistry and Society-GTSC2	3
CHEM 111	Introduction to Concepts of General Chemistry [3]	3
CHEM 121 & 121L	Principles of Chemistry-GTSC1 and Principles of Chemistry Laboratory-GTSC1 [5]	5
CHEM 122 & 122L	Principles of Organic Chemistry-GTSC1 and Principles of Organic Chemistry Laboratory-GTSC1 [5]	5
CHEM 131 & 131L	General Chemistry I-GTSC1 and General Chemistry Laboratory I-GTSC1 [5]	5
CHEM 132 & 132L	General Chemistry II-GTSC1 and General Chemistry Laboratory II-GTSC1 [5]	5
CHEM 151 & 151L	Engineering Chemistry-GTSC1 and Engineering Chemistry Laboratory-GTSC1 [5]	5
ENVS 101	Introduction to Environmental Science-GTSC2	3
GEOL 100	Survey of Earth Science-GTSC2	3
GEOL 103	Weather and Climate-GTSC2	3
GEOL 104	Oceanography-GTSC2	3
GEOL 105	Geology of Colorado-GTSC2	3
GEOL 106	Introduction to Dinosaurs-GTSC2	3
GEOL 107	Natural Hazards and Environmental Geology-GTSC2	3
GEOL 108	Water, People, and Environment-GTSC2	3
GEOL 109	Geologic Wonders of Our National Parks [6]	3
GEOL 111 & 111L	Principles of Physical Geology-GTSC1 and Principles of Physical Geology Laboratory-GTSC1 [5]	4
GEOL 112 & 112L	Principles of Historical Geology-GTSC1 and Principles of Historical Geology Laboratory-GTSC1 [5]	4
GEOL 113 & 113L	Field-Based Introduction to Physical Geology-GTSC1 and Field-Based Introduction to Physical Geology Laboratory-GTSC1 [5]	4
PHYS 100	Concepts of Physics-GTSC2	3
PHYS 101	Elementary Astronomy-GTSC2	3
PHYS 103 & 103L	General Astronomy-GTSC1 and General Astronomy Laboratory-GTSC1 [5]	4
PHYS 111 & 111L	General Physics I-GTSC1 and General Physics I Laboratory-GTSC1 [5]	5

PHYS 112 & 112L	General Physics II-GTSC1 and General Physics II Laboratory-GTSC1 [5]	5
PHYS 131 & 131L	Fundamental Mechanics-GTSC1 and Fundamental Mechanics Laboratory-GTSC1 [5]	5
PHYS 132 & 132L	Electromagnetism and Optics-GTSC1 and Electromagnetism and Optics Laboratory-GTSC1 [5]	5

1 The combination of ENGL 111 and ENGL 219 does not meet the Essential Learning English requirement.
2 Students seeking the BA, BFA, BM, BME, or BSW degree must complete MATH 110 or a higher level mathematics course with a grade of "C" or higher to fulfill their mathematics competency under Essential Learning; students seeking the BS, BSN, or BBA degree must complete MATH 113, MATH 113R, or a higher level mathematics course with a grade of "C" or higher to fulfill their mathematics competency under Essential Learning; students seeking the BAS degree must refer to their specific program to determine the mathematics competency requirement under essential learning.
3 Not approved for gtPathways.
4 Cannot be used to substitute for ESSL 200 of the Essential Learning Capstone Requirement.
5 Only these courses fulfill the requirement of Natural Science with an associated lab or field component. Both the lecture and laboratory must be taken if Essential Learning credit or graduation credit is to be received.
6 Pending review by gtPathways.
7 May also satisfy this requirement by completing both MATH 119A and MATH 119B.

Other Lower Division Requirements for Baccalaureate Degrees

In addition to the Essential Learning Core requirements described in the previous section, students pursuing a CMU baccalaureate degree must meet other lower division requirements as described below.

Essential Learning Capstone

Students are required to complete between 45 and 75 credit hours of coursework before enrolling in the four credits associated with the co-requisite Milestone and Speech courses:

Code	Title	Semester Credit Hours
ESSL 290	Maverick Milestone [1]	3
ESSL 200	Essential Speech	1

1 See the Maverick Milestone policies included in the General Undergraduate Academic Policies section.

Wellness Requirement

Each student must take Health and Wellness (KINE 100) plus either one or two activity courses, as specified on the program sheet for each major. Program sheets can be found under Programs A-Z (p. 832). The only exception to taking KINE 100 are those students who request and pass a proficiency test at least at the 80 percent level. Contact the Kinesiology Department Head or the CMU Testing Center for additional information.

Up to six activity courses (excluding varsity athletics) in KINA, DANC, OREC, or MUSP, may be taken as electives toward graduation with a baccalaureate degree.

Activity courses are designed to emphasize and assess basic skills, related knowledge, and the importance of physical activity in promoting and maintaining personal health. Students learn and apply health fitness concepts while gaining skills relating to the specific activity. Throughout the eight weeks, students complete various assignments designed to encourage physical activity, healthy lifestyle changes, and application health and fitness concepts.

Courses approved for the Wellness requirement for baccalaureate degrees are as follows:

Code	Title	Semester Credit Hours
KINE 100	Health and Wellness	1
KINA 100-Level	Activity Courses	1
DANC 154	Dance Team	1
DANC 160	Beginning Ballet	1
DANC 169	Beginning Modern Dance	1
DANC 174	Beginning Jazz Dance	1
DANC 177	Beginning Tap Dance	1
DANC 180	Beginning Hip Hop Dance	1
MUSP 147	Marching Band	1
OREC 104	Orienteering	1
OREC 105	Backpacking	1
OREC 108	Stand Up Paddle Boarding	1
OREC 109	Kayaking	1
OREC 110	River Rafting	1
OREC 112	Rock Climbing II	1
OREC 135	Backcountry Winter Travel	1

Note on Varsity Athletics: Only one varsity sport activity course numbered KINA 180V or KINA 180-189 may be used to meet the Wellness activity requirement. Varsity athletics may not be used as elective credit.

Upper Division Requirements

Students seeking a baccalaureate degree must earn a minimum number of upper-division semester credit hours (numbered between 300 and 499), depending on the degree and major.

A minimum of 40 semester credit hours is required for all Bachelor of Arts, Bachelor of Fine Arts, Bachelor of Music, Bachelor of Music Education, Bachelor of Science, Bachelor of Business Administration and Bachelor of Social Work degrees. Students seeking a Bachelor of Science in Nursing or Bachelor of Applied Science should refer to their program sheet, located under Programs A-Z (p. 832), for the minimum upper-division credit hour requirement.

Requirements for Associate Degrees

- Associate of Arts (AA)
- Associate of Science (AS)
- Associate of Applied Science (AAS)

Credit Hour Requirements

For most associate degrees, 60 semester credit hours in approved course work must be earned. A cumulative grade point average of 2.00 or higher must be achieved for all courses including those which comprise the area of emphasis. Some programs have additional GPA requirements.

Academic Residency for Associate Degrees

To receive an associate degree from Colorado Mesa University, students must complete a minimum of 15 of the final 30 semester hours of credit through Colorado Mesa University.

Associate of Arts (AA) and Associate of Science (AS) Degree Requirements

AA and AS degree programs are designed to prepare students for transfer into upper division collegiate work (junior level) in colleges and universities granting the Bachelor of Arts (BA) or Bachelor of Science (BS) degree. The AA degree is structured for transfer into a baccalaureate degree program, with junior standing, in the arts, humanities, social or behavioral sciences, or one of the professional fields with such disciplines as its base. The AS degree is designed for transfer into a baccalaureate degree program, with junior standing, in one of the mathematical, biological, or physical sciences, or in one of the professional fields with such disciplines as its base.

CMU's Essential Learning Core coursework for all AA and AS degree programs aligns with the Colorado Statewide General Education Core and will thus meet the lower-division General Education requirements of most baccalaureate degree programs at public institutions in Colorado. A grade of "C" or higher is required in each Core course in order to be accepted for transfer under the Core Transfer Agreements.

Students should consult with their faculty advisors to assure that the emphasis and electives chosen will satisfy requirements of the particular baccalaureate programs to which they plan to transfer.

In general, coursework for the AA or AS degree includes:

1. Completion of the university's 31 credit hour Essential Learning Core which fulfills the state's General Education curriculum. The same English and mathematics requirements specified for baccalaureate-seeking students also apply to those pursuing an AA or AS degree.

   Students pursuing an AA or AS degree do not have to complete the 4 credit hour Essential Learning Capstone courses unless they transfer into a baccalaureate degree program. Once a student makes the transition to a baccalaureate program, the Essential Learning Capstone requirements take effect and should be completed in the earliest possible semester after which 45 credit hours have been earned.

   Specific information about the Essential Learning content areas, required hours and courses is found under the baccalaureate section "Essential Learning Core Course Requirements" and "Core Courses Approved for the Essential Learning Program Requirements."
2. Other lower division requirements. For the Wellness requirement, an associate degree seeking student must earn two semester credit hours in Kinesiology. In addition to KINE 100, a student also must complete one activity course which include: KINA 100-level courses, DANC 160, DANC 169, DANC 174, DANC 177, DANC 180, MUSP 147, OREC 104, OREC 105, OREC 108, OREC 109, OREC 110, OREC 112, and OREC 135. Up to three KINA courses (excluding varsity athletics) may be taken as electives toward graduation with an associate degree.

   Students seeking an associate degree must complete the Essential Learning Core, but do not have to enroll in the Essential Learning Capstone requirements until they formally declare a major in a baccalaureate degree.
3. Discipline classes (emphasis).
4. Electives. May be required to meet the minimum 60 hours.

Associate of Applied Science (AAS) Degree Requirements

AAS degree programs are intended to prepare individuals to enter skilled and/or para-professional occupations or to upgrade/stabilize their employment. With the exception of the Bachelor of Applied Science degree, these programs generally are not intended for transfer to baccalaureate degree programs. Selected courses, however, may be accepted toward a baccalaureate degree at some institutions. The AAS degrees available at Colorado Mesa University, along with the courses required to complete each degree, are described in the Programs of Study section in this catalog. Students should consult a faculty advisor on specific degree requirements.

Required coursework for an AAS degree includes:

1. Essential Learning courses (15 semester credit hours)
   While some courses may be specified for a major, the following minimum requirements apply:
   a. 3 semester hours of Mathematics:
      - MATH 107 or higher

      Note: MATH 107 and MATH 108 do not meet the mathematics Essential Learning (General Education) requirement for students who subsequently elect to pursue an AA, AS, or a baccalaureate degree.
   b. 6 semester hours of Communication:
      - ENGL 111 and
      - ENGL 112 or SPCH 101 or SPCH 102
   c. 6 semester hours of other Essential Learning Core courses:
      - 6 semester hours Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities.
2. Wellness Requirement: 2 semester hours
   For the Wellness requirement, an associate degree seeking student must earn two semester credit hours in Kinesiology. In addition to KINE 100, a student also must complete one activity course which include: KINA 100-level courses, DANC 160, DANC 169, DANC 174, DANC 177, DANC 177, DANC 180, MUSP 147, OREC 104, OREC 105, OREC 108, OREC 109, OREC 110, OREC 112, and OREC 135. Up to

three KINA courses (excluding varsity athletics) may be taken as electives toward graduation with an associate degree.
3. Discipline classes (emphasis).
4. Additional lower division requirements as relevant to some degrees, e.g. prerequisites.

Double Emphasis within an Associate Degree

Students who elect to pursue a double emphasis within one degree must satisfy all the requirements for each emphasis. Only one associate degree will be awarded, and all emphases must be declared on the petition to graduate.

Second Associate Degree

A minimum of 15 semester hours of credit beyond that required for the first associate degree must be earned by a student seeking a second associate degree at Colorado Mesa University. A minimum of one semester of residency at Colorado Mesa University is also necessary. In addition, the student must satisfy all specific requirements for the new degree. Only one AA and only one AS degree may be granted to any student.

Reverse Transfer

Colorado Mesa University participates in the Colorado Reverse Transfer initiative. This program allows students who transfer between Colorado two-year and four-year institutions to combine credits to apply toward an associates degree. Any student who recently attended Colorado Mesa University and then transferred to another Colorado institution may transfer credit back to CMU for consideration in an existing associates degree program. Qualified students are notified via email in March of each year and must choose to opt-in. Contact the Registrar's Office for more information.

Requirements for Undergraduate Certificates

Professional Certificate Requirements

Colorado Mesa University offers upper division, professional certificates for students interested in broadening their knowledge and/or enhancing job-related skills in a professional field of study. The requirements for professional certificates vary and include coursework in a discipline in addition to a mix of lower division Essential Learning Courses. Candidates for a Professional Certificate at Colorado Mesa University must satisfy all requirements specified on the certificate's program sheet with a cumulative grade point average of 2.00 or higher for all courses taken to satisfy program requirements. A grade lower than a "C" in the program of study will not be counted toward meeting the certificate's requirements. To meet academic residency at least fifty percent of the credit hours for the certificate must be earned through Colorado Mesa University. Students should contact the appropriate academic department head for specific certificate requirements.

Technical Certificate Requirements

Candidates for a Technical Certificate at Colorado Mesa University must satisfy all requirements specified on the certificate's program sheet with a cumulative grade point average of 2.00 or higher for all courses taken to meet the certificate requirements. A grade lower than "C" in the program of study will not be counted toward meeting the certificate's requirements. To meet academic residency, at least fifty percent of the credit hours for the certificate must be earned through Colorado Mesa University.

Colorado Statewide Guaranteed Transfer Courses

Colorado Department of Higher Education Statewide Guaranteed Transfer Courses

Colorado Mesa University offers a wide variety of Essential Learning courses that are approved for Colorado's Guaranteed Transfer Pathways (gtPathways) General Education Curriculum, which ensures their acceptance for transfer to other Colorado public institutions of higher education. Additionally, CMU accepts the transfer of gtPathways approved courses from other Colorado public institutions of higher education. Guaranteed transfer courses are universally transferable across these institutions and are applicable to Essential Learning/ General Education requirements within all associate and baccalaureate degree programs.

GT Codes

To determine if a CMU course is eligible for gtPathways transfer, check for a GT code in the course description. Courses approved through Colorado's gtPathways General Education Curriculum are grouped into five content areas, four of which have sub groupings:

Code	Title	Semester Credit Hours
Arts and Humanities:		
GT-AH1	Arts and Expression	
GT-AH2	Literature and Humanities	
GT-AH3	Ways of Thinking	
GT-AH4	World Languages [1]	
Communication:		
GT-CO1	Introductory Writing	
GT-CO2	Intermediate Writing	
GT-CO3	Advanced Writing	
Mathematics:		
GT-MA1 [2]		
Natural and Physical Sciences:		
GT-SC1	Lecture Course with Required Laboratory	
GT-SC2	Lecture Course without Required Laboratory	
Social and Behavioral Sciences:		
GT-HI1	History	
GT-SS1	Economic or Political Systems	
GT-SS2	Geography	
GT-SS3	Human Behavior, Culture, or Social Frameworks	

[1] Intermediate, i.e., 200-level.
[2] Note: no subgroups.

All courses (except as noted) listed under the Essential Learning Core Course Requirements (p. 77) section, in addition to STAT 200, have been approved by the Colorado Department of Higher Education (CDHE) as guaranteed transfer courses. They also are designated in the Course

Descriptions (p. 850) section of this catalog. More information is available at the CDHE transfer website as well as from the CMU Registrar's Office statewide transfer programs website or a faculty advisor.

GRADUATE INFORMATION AND PROGRAMS

- General Graduate Admissions Policies & Procedures (p. 85)
- Graduate Degree Requirements (p. 87)
- Graduation Checklist (p. 89)
- Research Activities (p. 90)
- Graduate Certificate in Applied Mathematics (p. 90)
- Graduate Certificate in Rhetoric and Literary Studies (p. 90)
- Graduate Certificate in Social Science (p. 91)
- Graduate Certificates in Education (p. 91)
- Initial Teacher Licensure (p. 91)
- Master of Arts in Criminal Justice Leadership and Policy (p. 91)
- Master of Arts in Education (p. 92)
- Master of Business Administration (p. 92)
- Master of Physician Assistant Studies (p. 93)
- Master of Science in Athletic Training (p. 93)
- Master of Science in Nursing (p. 93)
- Master of Science in Occupational Therapy (p. 94)
- Master of Science in Sport Management (p. 95)
- Master of Social Work (p. 95)
- Doctor of Nursing Practice (p. 96)
- Doctor of Physical Therapy (p. 97)

[The following programs are no longer accepting new students: Graduate Certificate in Rhetoric and Literary Studies and Master of Arts in Criminal Justice Leadership and Policy.]

The above links are to general information on graduate programming, policies, and procedures at Colorado Mesa University. For details on specific graduate programs, including degree requirements and suggested course sequencing, please refer to program information found through the Areas of Study (p. 100) or Programs A-Z (p. 832) sections.

General Graduate Admissions Policies & Procedures

Admission Criteria

Faculty in each degree program establish admission standards for the individual graduate program, which may exceed the minimum standards set by Colorado Mesa University's Graduate Studies Advisory Committee. Applicants should consult the Graduate Program Coordinator for any additional admission requirements.

Individuals seeking to enter CMU as graduate students who have not yet been accepted into a graduate program or do not desire a credential may apply for "Non-Degree Seeking" admission. Each applicant must possess a baccalaureate degree from an accredited college or university, or equivalent certification. Faculty can make recommendations for admission of non-degree seeking students who do not meet the criteria to the Director of Graduate Studies.

An individual without a baccalaureate degree may be admitted to a master's degree program only if they are admitted to a combined program at CMU, such as the MBA 3+2 program.

Admission Procedures

To begin a graduate program at CMU, a student must possess a baccalaureate degree from an accredited institution. The following items must be submitted to the Admissions Office online:

1. A completed Application for Admission to Graduate Programs and a $50 application fee. The fee is non-refundable and is not applicable toward tuition. The application form may be found on the Graduate Studies webpage or the admissions homepage under "graduate application."
2. Official transcripts of all college and university work must be sent directly to the Graduate Admissions Coordinator by email at graduate@coloradomesa.edu or directly to the coordinator by each institution attended. Unofficial copies of transcripts can accompany the original application, but official copies will be required before full admission is granted. Transcripts received directly from students cannot be accepted except for advising purposes. The transcripts of students who previously attended CMU must still be requested from the Registrar's Office.
3. Test scores, If required by the program, from either the Educational Testing Services for the Graduate Record Examination (GRE) or the Graduate Management Admission Test (GMAT), or from the Psychological Corporation for the Miller Analogies Test (MAT) must be provided. Students must request the scores be sent to the Admissions Office. See the specific degree program for required examinations.
4. Acceptance for admission is determined by the specific program's Graduate Admission Committee, which acts as the selection committee for new or readmitted applicants. Final approval for admission is subject to Department Head approval with notification to the Director of Graduate Studies.
5. Academic departments offering graduate programs may admit a student based upon supplemental/alternate criteria that have been established by the major department. If someone is recommended for admission who does not meet CMU's graduate program standards, a rationale must be provided stating the factors which were considered in recommending the student: GPA in the discipline; letters of recommendation; samples of the student's work; GRE, MAT or GMAT scores; or other compelling factors. The Director of Graduate Studies reviews all recommendations for admission below the standard.

Applicants should check with individual programs regarding specific application and admission deadlines. After the program faculty make a final decision on admission, the student will be notified of the outcome.

Admission Expiration

Students who do not enroll in the semester in which they are admitted and who do not notify the program should reapply for admission and adhere to program admission deadlines, deadlines, the Graduate Program Coordinator can move an admission term if it is within one year, if it is beyond that the student must re-apply.

Students who wish to defer beginning of the program may request deferred admission for a period of up to one calendar year with permission of the Program Director/Coordinator, Academic Department Head, and Director of Graduate Studies, the Graduate Program

Coordinator can move an admission term if it is within one year, if it is beyond that the student must re-apply. .

Conditional Admission

Conditional admission refers to applicants admitted pending the receipt of application requirements specified by either the Admissions Office and/or the academic department. Applicants for admission may be accepted into a graduate program or with the provision that they complete deficiencies as noted in and by the dates specified in their acceptance letter.

International Student Admission

To be considered for admission, a prospective international graduate student who has or will be seeking an F-1 student visa, must apply for admission and satisfy all requirements of the graduate program and the Office of International Student Admissions.

International applicants are required to:

1. Provide all university transcripts from previous institutions. For courses taken and degree(s) earned at a college/university outside of the United States, a professional transcript evaluation from an approved company must be received. Please see the International Graduate Admissions webpage for information on approved foreign transcript evaluation options and verify with the graduate program if a specific type of evaluation is needed and/or from a specific company. In most cases, course descriptions or syllabi are required, along with the evaluation, to determine content of individual courses.
2. Provide proof of English proficiency. Submit exam scores from within two years for the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). Please see the International Graduate Admissions webpage for more information and verify with the graduate program if a specific test and/or score is required.
3. To issue the I-20, an international applicant must complete and have notarized the CMU Statement of Financial Support and submit this form, along with official bank statement(s), demonstrating proof of sufficient financial resources. Costs and forms may be obtained from the International Graduate Admissions webpage.
4. For registration purposes, all international students are required to maintain health insurance. Students are automatically enrolled in CMU's international student group insurance plan. Contact the International Student Services Office with questions.
5. For registration purposes, all international students are required to comply with the Colorado law regarding the measles, mumps and rubella immunizations. A Colorado Mesa University official immunization form must be completed.

International students on an F-1 or J-1 visa are required to register for a full-time course load of a minimum of six credit hours per semester, or minimum full-time, as determined by the graduate program. International students on a visa are limited in regards to the number of web/online credits in which a student can enroll each semester. Students are encouraged to discuss this and other regulations with the International Student Services Office.

Enrollment Prior to Admission

Students who have applied for admission to a graduate program at CMU are not permitted to enroll for more than nine credit hours in that graduate program as a non-degree seeking student. A hold shall be placed on the student's registration, and the student cannot continue to enroll until an admission decision has been reached. A student's application must be complete, and the program faculty must recommend either a regular admission or must deny admission by the earning of nine credit hours.

Financial Aid

Students should consult the Financial Aid Office for eligibility requirements of undergraduate & graduate programs.

Admission Appeals

An applicant who has been denied admission to a graduate program or who has received Conditional Admission may request reconsideration by writing to the Graduate Program Department Head within 10 days of the date of denial or notification of conditional admission status. Requests should include the reasons for requesting reconsideration, along with supporting materials and information that was not submitted with the original application. Appeals should follow the appeal process listed in the Graduate Policies and Procedure Manual.

Academic Advisor

Each student shall be assigned a Graduate Advisor upon acceptance into a graduate program by the appropriate department. The student's Graduate Advisor, in consultation with the student's Graduate Committee or Graduate Program Director/Coordinator, should approve all courses applied to graduation requirements. The Graduate Advisor also is responsible for assisting students with questions regarding their academic programs such as expectations for comprehensive examinations, thesis, and/or practicum as well as professional advising and guidance for academic and professional endeavors. Any advisor-approved deviations from published program requirements or degree plans must be approved by the Graduate Program Director/Coordinator, the Academic Department Head and the Director of Graduate Studies.

Note: The importance of the Graduate Advisor cannot be overstated. Advising includes all aspects of students' present and future academic and professional planning. It is often the Graduate Advisor who is able to help students conceptualize their academic program within the context of their own professional goals and aspirations.

Degree Plan

After acceptance into a graduate program, each student shall meet with their Graduate Advisor and determine a degree plan that, when completed, leads to the attainment of the graduate degree. The degree plan shall be constructed before the student completes one semester or nine credit hours of coursework. This degree plan should follow the guidelines of CMU and the academic department. The respective degree plan shall list all courses, including those needed for any remediation and/or weaknesses deemed by the academic advisor, and practicum, thesis, and research requirements necessary to complete the specific degree. The degree plan should have the approval of the student, the academic advisor, the Graduate Advisor, the Graduate Program Director/Coordinator, and the Academic Department Head. Upon completion of the degree plan and all requirements, and upon the recommendation of the Faculty, the student shall be awarded the respective graduate degree.

Note: An addendum can be submitted to the degree plan provided the approval of the student, the Graduate Advisor, the Graduate Program Director/Coordinator, the Academic Department Head, and the Director of Graduate Studies are secured approving the changes.

Transfer Credit

Students can transfer up to 30% from another accredited institution into their degree plan for a graduate degree provided they meet the general transfer policies of CMU and are approved by the Graduate Advisor, the Graduate Program Director/Coordinator, and the Academic Department Head.

1. Transfer work is not applied in the calculation of the graduate GPA.
2. Grades earned on transferred courses should be equivalent to B- or better. Only courses graded by "letter" grades are transferable.
3. Courses graded S/U or P/F are not transferable (this includes thesis, dissertation, practicum, and capstone credits that may be awarded letter grades at other institutions).
4. Transfer courses should be numbered as graduate level (5XX, 6XX, 7XX) according to the institution's graduate transcript. Transfer courses should be from regionally accredited institutions of higher education that offer equivalent level degrees or graduate level coursework.
5. Graduate internship credit transferred from another institution may be considered for transfer credit. Requirements may vary by academic program.
6. Thesis credit or credit for a master's project is not eligible for transfer credit unless the thesis or research project is a collaborative or joint effort between CMU and another accredited institution offering graduate programs and degrees.
7. After beginning their graduate program of study at CMU, students wishing to take one or more courses at another institution for graduate credit should first consult their Graduate Program Director/Coordinator. Permission may be granted following the procedure for transferring the credits earned at other institution as described above.
8. Non-credit courses, including lifetime learning seminars and continuing education courses, are not eligible for transfer credit.
9. Students wishing to take one or more courses at another institution for graduate credit after beginning their graduate program of study at CMU must first consult their program graduate advisor. Permission may be granted following the procedure for transferring the credits earned at other institution as described above.

Students who wish to transfer credit must provide the Registrar's Office with complete documentation showing the course(s) to be transferred. The student then must present the complete transcript to the program advisor for approval or disapproval. Any transfer credits must be included on the degree plan. Courses requested for transfer must meet all criteria for credit transfer (see general transfer policies) to be approved by the department.

Students seeking transfer credit may also be asked to provide the published course description, and learning objectives, course requirements, including assignments and grading criteria, information on the course syllabus, textbook, etc. to the program advisor for consideration.

Academic Integrity

Academic misconduct includes, but is not limited to, plagiarism, the appropriating of written, artistic, or musical composition of another, or portions thereof; or the ideas, language, or symbols of the same and passing them off as the product of the student's own mind. Plagiarism includes not only the exact duplication of another's work but also the lifting of a substantial or essential portion thereof.

Regarding written work in particular, direct quotations, statements which are a result of paraphrasing, summarizing the work of another, and other information which is not considered common knowledge must be cited or acknowledged. As long as students adequately acknowledge their sources and as long as there is no reason to believe that they have attempted to pose as the originator, students shall not be charged with plagiarism even though the form of the acknowledgement may be unacceptable. However, students should be aware that most professors require certain forms of acknowledgment and that adequate referencing (or acknowledgement) may be a part of the grading criteria for specific graduate coursework or program requirements. More information on academic misconduct can be found in the Maverick Guide.

Graduate Degree Requirements

Graduate students have higher expectations placed upon them than undergraduate students. These expectations are in the areas of scholarship, participation, leadership, and integrity. Graduate coursework is designed to advance students personally and professionally and produce scholars, researchers, and practitioners educationally empowered as critical thinking citizens and agents of innovation, opportunity, and change.

For more information on policies and procedures concerning graduate study at CMU, please refer to the Graduate Policies and Procedure Manual.

Graduate Degree Requirements

Credits in a master's degree program should be designated minimally at the 500 level. The student's Graduate Advisor, in consultation with the student's Graduate Committee or Graduate Program Director/Coordinator, should approve all courses applied to graduation requirements.

Up to nine credit hours of course work completed as a non-degree student may be credited subsequently to a degree program with the approval of the Graduate Program Director/Coordinator in consultation with the student's Graduate Advisor and the program's Graduate Committee.

Note: Upon prior written permission of the instructor, the academic advisor, and the department head, a currently enrolled undergraduate student may take up to six 500-level graduate credit hours and apply them to an undergraduate degree in addition to a graduate degree.

Doctoral Degree Requirements

A minimum of 60 credit hours is required for doctoral degrees. Additional graduate hours may be required as specified by individual programs.

The doctoral degree requires a culminating activity in the form of a dissertation, practicum, research project, or capstone experience. In addition, some programs require a qualifying examination for advancement to candidacy approximately midway through the program and may require an oral defense at the completion of the program. Refer to academic departments for specific culminating degree requirements or to find out if a qualifying examination is necessary.

Doctoral programs also require a formal paper and oral presentation in defense of the culminating activity. In the case of programs requiring a qualifying examination, eligibility to take the exam is determined by

the Program Director/Coordinator, based on the completion of program specific policies. Examinations are graded as Pass/Fail as determined by members of the student's Graduate Committee. The result of the exam are forwarded to the Director of Graduate Studies.

Other criteria and requirements for doctoral programs may exist. Refer to specific guidelines for each graduate program.

Doctoral coursework should be a learning experience for both the student and the faculty member. The nature of doctoral coursework is to expand the boundaries of known knowledge and to create and explore new ideas, processes, artistic endeavors, or other scholarly works that engage members of the discipline. In this process of exploration, the doctoral student is expected to engage in a scholarly project in their field or conduct research that contributes to existing bodies of knowledge at a professional level. This effort should include taking what the student knows, incorporating new material and ideas, and advancing the field. Students should produce scholarly works acceptable to the professional communities in their fields as a result of doctoral coursework and other requirements.

Masters Degree Requirements

A minimum of 30 credit hours is required for master's degrees. Additional graduate hours may be required as specified by individual programs.

In 3+2 (or similar) programs, credit used for the graduate portion of the program, should minimally be at the 500 level.

Master's degrees require a culminating activity(ies) in the form of a thesis, practicum, research project, capstone experience and/or comprehensive exam. In addition, some programs require a qualifying examination for advancement to candidacy approximately midway through the program and may require an oral defense at the termination of the program. Refer to academic departments for specific culminating activity requirements.

Coursework progressing toward the master's degree should illustrate students' commitment toward mastery of a subject beyond the level expected of an undergraduate student. This mastery should be evidenced in the student's attendance, participation in discussions, mentoring of others, research quality, and general interactivity within their field of study. Students in a master's program should be able to assess the quality of research articles in their field, interpret analyses of data, and evaluate the validity of arguments from a variety of sources. In addition, writing at the master's level should be noticeably advanced compared to that of the undergraduate level. These advances should take the form of engaging the body of literature on a topic, scholarly writing to include literature reviews, appropriate formatting, and extensive analysis of sources of information. As a result of master's coursework, students should possess the ability to explore, manage and converse regarding information in the field with the integrity necessary for consistency with other professional peers.

Graduate Certificate Requirements

Graduate certificates contain a minimum of 6 credit hours.

Graduate certificate programs may be embedded within graduate degree programs, but such certificates are not automatically awarded upon the completion of a graduate degree. Students must apply to have the certificate awarded.

Graduate certificates are not required to address all graduate-level student learning outcomes, but are required to address some of the institutionally established outcomes.

Dual-listed Courses

Undergraduate courses may not be taken for graduate credit. Within undergraduate courses that are dual-listed (for example 460/560), the graduate student is expected to perform at a higher level and complete more extensive and challenging academic work than the undergraduates in the same course.

Note: At least 70 percent of a student's master's degree program must be in courses that are at the 500 level and not dual listed. All courses in the doctoral program must be at the 500 level or above.

Grades

Grades of "A," "B," "C," "D," and "F" are used and computed in the GPA. Other marks used are "I" (incomplete); "W," (withdrawn); "NC," (no credit); and "P," (passing). At the discretion of graduate programs, Pass/Fail (or "P/F") grades may be allowed for research, practicum, and thesis courses. Grades of "I," "W," "NC," and "P" are not counted in determining GPA. Courses for which "C," "D," "F," "I," "W," or "NC" grades are awarded shall not count in graduate degree programs and shall not satisfy program deficiency requirements.

Incomplete ("I") grades are temporary grades given to a student only in an emergency case and at the discretion of the instructor.

At the end of the semester following the one in which an "I" is given, the "I" becomes the grade that is submitted by the instructor to the Registrar's Office. If the instructor does not submit a grade by the deadline for that semester, the grade becomes an "F." For, example, a grade of "I" given spring semester should be addressed by the end of the following fall term unless a longer term is specified by the instructor.

Extension of the time to complete work may be made in exceptional circumstances at the discretion of the instructor. A student with an "I" grade, however, may not change the "I" by enrolling in the same course another semester, except in the case of thesis and dissertation courses, which require continuous enrollment while progressing toward the degree. Grades can be changed, using the Special Grade Report, within the first two weeks of the semester following the receipt of the original grade by the Registrar's Office.

GPA Requirement

Students must have a GPA at least a 3.0 to graduate.

Students may not apply coursework with a grade of "C" toward graduation requirements for a graduate program. Students may have the option to repeat a course for grade improvement to a "B" or better, depending on individual program guidelines.

As allowed by specific program requirements, students may repeat a maximum of two different courses at the graduate level for up to 6 credit hours. No course may be repeated more than once, except in the case of thesis and dissertation courses, which require continuous enrollment while progressing toward the degree. When a course is repeated, the highest grade earned is computed into the student's GPA. All attempted courses and grades remain in the academic record but are not computed in the overall average. In these cases, transcripts will contain a statement

indicating the grade point average has been re-computed and stating the basis for re-computation.

Students with a cumulative grade point average of less than 3.0 are placed on academic probation. Students have one semester to improve to good standing. Two semesters of probationary status may result in dismissal from the graduate program.

Transfer of Graduate Credit

Upon approval, up to 30% of the credit hours required for a graduate degree may be transferred from another accredited institution. Individual programs may have more stringent transfer limits. Please consult the individual program for specific limits.

Requests for credit to be transferred toward a graduate degree are reviewed by the appropriate program Graduate Admission Committee. Recommendations are then reviewed by the Department Head and sent to the Registrar for review and documentation. The desired transferred credit should represent graduate-level work relevant to the degree being sought with course content and level of instruction resulting in student competencies at least equivalent to those of currently enrolled students at CMU as determined by the program's Graduate Admission Committee.

Dismissal from Program

Students may be dismissed from a degree program for the following reasons:

- The student earns a "D" or "F" in a course.
- The student is placed on probation for a second time.
- The student fails to maintain a 3.0 cumulative GPA for two semesters.
- The student fails the written and/or oral comprehensive examination or its approved equivalent as specified by specific program requirements.
- The student submits an unsatisfactory thesis, practicum paper, or culminating activity.
- The student exceeds the time allowed for completion of the program prior to completing all degree requirements.
- The student has not maintained a "B" or better in all credit-bearing courses.
- The student violates the criteria or procedures in this manual or set forth by the department in its graduate handbook.
- The student fails to behave in a professional manner, this includes instances of academic misconduct.
- The student fails to make satisfactory progress on the remedial terms specified in a formal letter of probation.
- The student on probation for earning a "C" earns a "C" in a second course.
- The student is found to have committed research misconduct by the Office of Sponsored Programs. (see Section Section XII.)

Students are notified of their dismissal in a written letter from the Graduate Program Director/Coordinator after the director has consulted with the student's Graduate Committee and the Academic Department Head. The letter will specify the date and exact reason for dismissal and copy will be sent to the Director of Graduate Studies and the University Registrar. Appeals of dismissal follow the Appeals Process outlined in the Graduate Policies and Procedure Manual

Program Time Limits

Master's degree students have six calendar years from the date of first registration in a Colorado Mesa University graduate program to complete the program. At the end of the fifth year or after 10 semesters, the Graduate Program Director/Coordinator should notify students that they have one academic year or two semesters to complete their program requirements.

Doctoral students have 10 calendar years from the date of first registration in a Colorado Mesa University graduate program to complete the program. At the end of the eighth year or after 16 semesters, the Graduate Program Director/Coordinator should notify students that they have two academic years or four semesters to complete their program requirements.

Students may submit a written request for a time extension to their advisor and the Graduate Program Director/Coordinator, which should be approved by the Academic Department Head and Director of Graduate Studies. Departments or programs may set shorter time requirements.

Graduation Checklist

Graduate students must apply for graduation no later than March 1 for fall graduates and October 1 for spring graduates.

Students should consult their Graduate Advisor and have a graduation plan saved to the DegreeWorks Plans tab outlining the final term courses and requirements.

Students also should submit an Intent to Graduate to the Registrar's Office.

Graduation requirements are reflected in DegreeWorks in accordance with the specific degree plan, the CMU Catalog, the Graduate Policy and Procedures Manual, and individual program requirements that are department-specific and specified in the CMU Catalog. In the event that there is a discrepancy, the Graduate Policy and Procedures Manual takes precedence. If the DegreeWorks audit does not correctly reflect all remaining requirements, including individual student adjustments, the Registrar or Registrar's designee should be notified of necessary corrections via email for official investigation.

The catalog used to meet graduation requirements is normally the one published for the academic term during which the student first enrolled and after which remains continuously enrolled. The student may specify this or a later version of the catalog under which they wish to be evaluated and should then meet the requirements in that catalog. The student may select a subsequent catalog up to and including the current one, provided the student was in attendance at CMU during the selected academic year.

CMU reserves the right to modify or change catalog provisions, based on existing mechanisms, in order to fulfill the CMU Role and Mission. Such changes or modifications may be implemented as applicable to all students at the time the changes are made, unless there is written approval stating otherwise from the Office of Graduate Studies and the Vice President of Academic Affairs. CMU reserves the right to terminate or modify program requirements, content, and the sequence of program offerings from time to time for educational or financial reasons that it deems sufficient to warrant such actions.

Research Activities

Research is an important component of graduate study. Specific research requirements and activities are defined by each degree program.

Sponsored Programs

The Office of Sponsored Programs mission is to provide support to faculty and other university personnel in obtaining and administering external funds for research and other scholarly activities. Research at Colorado Mesa University includes explorations that lead to the discovery and dissemination of new knowledge, the development of new applications of existing knowledge, the development of new paradigms for teaching and learning, and/or related creative activities in the fine arts.

The Office of Sponsored Programs is responsible for protecting university interests through the review of sponsored project proposals to non-university sources, contract and grant award review and negotiation, administration of award funds, and policy and procedure initiation and implementation.

Human Subjects and Animal Research

All research conducted by faculty, staff, or students that involves human subjects must be reviewed and approved by the Human Subjects Committee (also known as the Institutional Review Board or IRB). All research conducted by faculty, staff, or students that involves animals must be reviewed and approved by the Institutional Animal Care and Use Committee (IACUC). Graduate student research to fulfill course, thesis, or dissertation requirements is also subject to this regulation when animal or human subjects are used.

The Office of Sponsored Programs encourages all students to meet with their advisor if they intend to do research with humans or animals. Human subject research can include something as simple as an interview or survey. Failure to obtain approval by the IRB or IACUC before beginning a research project can be grounds for rejecting a thesis or dissertation and constitutes a serious breach of academic research ethics and federal law.

The policy, procedure, and forms required for human subject or animal research are available on the Sponsored Programs website. In addition, students may contact the Office of Sponsored Programs at osp@coloradomesa.edu.

Research Misconduct

In order to fulfill its obligations and ensure the public's trust, Colorado Mesa University (CMU), as a state institution of higher education, is committed to maintaining the integrity of all research, scholarship, and creative activities. To this end, CMU will take action to prevent research misconduct and, in cases where misconduct is alleged, will actively investigate the allegations.

In accordance with federal regulations, the University has in place a Misconduct in Research Policy. This policy applies to the conduct of research and/or related activities, whether the research is funded or not and regardless of: the field of study; presentation and/or publication of results; process of applying for funds; expenditure of project funds; and fiscal reporting on the use of project funds. This policy applies to all faculty, students, administrators, and staff on all Colorado Mesa University campuses. A copy of this policy may be found on the Research Policies and Procedures web page.

Graduate Certificate in Applied Mathematics

This program is inactive and is not currently accepting applicants.

The Graduate Certificate in Applied Mathematics is intended to provide licensed secondary mathematics teachers the post-secondary teaching credentials required by the Higher Learning Commission and to enable other professionals to enhance their knowledge of applied mathematics. For more complete program information: Applied Mathematics (Graduate Certificate) (p. 391). *[This program is inactive and is not currently accepting applicants.]*

Contact Information

Department of Mathematics and Statistics
Wubben Science 132
970.248.1407

Graduate Certificate in Rhetoric and Literary Studies

This program is no longer accepting new students.

The graduate certificate in Rhetoric and Literary Studies invites students to explore literary and cultural texts, creative writing, linguistics, and rhetorical and literary theory. Students gain a better sense of the discipline and contribute their own scholarly voice to the conversation. The certificate prepares those who already have an undergraduate degree in English and need advanced expertise to teach composition and literature in concurrent enrollment high school settings and undergraduate institutions of higher education. The program may also appeal to those who want to explore particular fields in greater depth, test aptitude for graduate school, or take steps towards an MA in English or Education.

The graduate certificate in Rhetoric and Literacy Studies is fully online to accommodate working professionals. It can be combined with additional coursework, through CMU's Center for Teacher Education, into a Masters of Arts in Education degree (p. 92).

The certificate program focuses on key expertise that develop close readers, persuasive writers, and critical thinkers:

- Rhetoric and Composition
- Literature
- Literary Theory
- Creative writing
- Linguistics

For more information, including program requirements, see Rhetoric and Literary Studies (Graduate Certificate) (p. 399).

Graduate Certificate in Social Science

This program is no longer accepting new students.

The Graduate Certificate program in Social Science provides licensed secondary social science teachers the credentials required by the Higher Learning Commission to teach concurrent college History or Political Science courses. The program also provides professionals and post-graduates an opportunity to take individual courses to enhance their education in History and Political Science or to serve as a bridge to other graduate programs in the social sciences.

Completion of the Graduate Certificate in Social Science requires 18 semester hours of study with an option to complete a Master of Arts in Education at Colorado Mesa University. The same graduate admission process applies to both the Master of Arts program and the Graduate Certificate program.

Contact Information

Department of Social and Behavioral Sciences
Houston Hall
970.248.1696

Requirements

See Social Science (Graduate Certificate) (p. 401) for information on program requirements.

Graduate Certificates in Education

The Center for Teacher Education offers graduate certificates in Educational Leadership and Exceptional Learner/Special Education. Both of these certificates may lead to a Master of Arts in Education (p. 92) if the candidate chooses to pursue that track and are Colorado Department of Education approved, endorsement programs:

- Educational Leadership (EDLD) = Principal License
- Exceptional Learner/Special Education (EDSE) = Special Education Generalist Ages 5-21

Requirements

Specific requirements for each graduate certificate in education are linked below. For information on the Initial Teacher Licensure graduate certificates, please see graduate programming.

- Educational Leadership (EDLD) (Graduate Certificate) (p. 393)
- Exceptional Learner/Special Education (EDSE) (Graduate Certificate) (p. 394)

Initial Teacher Licensure

Students already holding a Bachelor's degree or higher may pursue an initial teaching license at CMU in Elementary, Secondary, or K-12 Physical Education. Secondary licensure may be obtained in: Science, Social Studies, English, Mathematics, or Spanish.

For students pursuing coursework and preparation that leads solely to an initial teaching license, the Center for Teacher Education offers an intensive post-baccalaureate preparation program that can be completed in 12 months. The same coursework is also available at the undergraduate level in a 4-5 semester sequence at a somewhat slower pace. Either of these options lead to a recommendation for Colorado's initial teaching license with successful program completion.

The initial teacher preparation coursework can be incorporated in the MA, Education degree, allowing a student to complete teacher licensure and a master's degree in five semesters. For this option, the coursework begins at the post-baccalaureate initial teacher licensure level and includes internship experiences. The Master of Arts in Education core content follows in the second year; these courses are shown in the Graduate Education programs section. Students can complete the master's courses at a slower pace spread out over several years.

First steps, prior to formal application, require review of bachelor's degree or other previous coursework transcripts. Leveling courses may be required or a passing content Praxis score prior to admission into the graduate program. Please contact the Center for Teacher Education at 970.248.1786 for more information or see the Center for Teacher Education website.

Requirements Elementary ITL

- Education: Initial Teacher Licensure - Elementary (Graduate Certificate) (p. 396)
- Education: Initial Teacher Licensure - Elementary (MA, Education) (p. 379)

Secondary ITL

- Education: Initial Teacher Licensure - Secondary (Graduate Certificate) (p. 398)
- Education: Initial Teacher Licensure - Secondary (MA, Education) (p. 380)

K-12 Physical Education ITL

- Education: Initial Teacher Licensure K-12 Physical Education (Graduate Certificate) (p. 384)
- Education: Initial Teacher Licensure K-12 Physical Education (MAEd) (p. 382)

Up to nine credit hours may be taken as non-degree seeking and later applied to program requirements. Up to nine graduate credit hours of applicable courses, with a grade of B or higher, may be transferred from a regionally accredited institution into the master's degree program. Courses for transfer must be approved by the CTE Graduate Committee to meet program requirements. MA core classes are not accepted for transfer.

Master of Arts in Criminal Justice Leadership and Policy

This program is no longer accepting new students.

The Criminal Justice Leadership and Policy program is a graduate academic program offered in the Department of Social and Behavioral Sciences, leading to a Master of Arts in Criminal Justice Leadership and Policy (MACJLP) degree.

Criminal Justice practitioners and scholars are highly qualified, multi-skilled public safety professionals who collaborate with other entities in the American criminal justice system as well as the general public to

prevent and control crime, ensure due process, rehabilitate convicted offenders, and implement evidence-based practices.

The MACJLP program is a seven term (including summers) academic program. Admission into the program is competitive. The MACJLP program ensures the highest quality of education by offering collective learning experiences that emphasize leadership, policy, and administration, which enable students to pursue numerous career paths and promotional advancement within the criminal justice field. Graduates of the MACJLP program are well positioned to secure employment and promotional opportunities in policing, the courts system, corrections, or continuing graduate studies.

Requirements

This program is no longer accepting new students.

Important information about this program:

- 33 semester hours for the Master of Arts in Criminal Justice Leadership and Policy.
- MCJLP Program acceptance (see the catalog and program website for specific admissions requirements).
- CRMJ 511 Foundational Seminar to be completed within a student's first 15 credit hours.
- All courses and course sequencing are required and must be completed at CMU or through applicable transfer credit.
- Complete a culminating graduate-level project (Master's Capstone).

See Criminal Justice Leadership and Policy (MA) (p. 295) for a complete overview of all requirements, important information, and suggested course sequencing for the program.

For additional details on admission requirements, please visit the Social and Behavioral Sciences Department page of the university website.

Master of Arts in Education

The Master of Arts in Education meets the needs of people already holding a baccalaureate or higher degree who wish to earn a teaching license or current teachers who wish to gain expertise in additional state endorsement areas. The degree is awarded after successful completion of all required college coursework. In addition to the cognate area coursework, the master's program provides the student with twelve hours of core knowledge in education research; curriculum theory and design; culture and pedagogy; education technology; and a master's capstone project.

The current cognate areas are Educational Leadership (EDLD), Teaching and Leadership (EDTL), Exceptional Learner/Special Education (EDSE), and Initial Teaching Licensure (ITL) (Elementary, Secondary, Physical Education).

Admission to the program follows the guidelines for graduate admission procedures indicated in this catalog. The application packet is available online and lists additional admissions materials required for acceptance.

Capstone

The Master of Arts in Education requires the successful completion of a capstone experience (EDUC 600). See individual program information for details.

Requirements

Specific requirements for each Master's degree in education are linked below. Each cognate group can also be completed as a graduate certificate for candidates not wishing to complete a full master's degree program. The same graduate admissions process applies to graduate certificates. Requirements for graduate certificates may be found under graduate programming.

- Educational Leadership (EDLD) (MA, Education) (p. 375)
- Initial Teacher Licensure - Secondary (MA, Education) (p. 380)
- Initial Teacher Licensure - Elementary (MA, Education) (p. 379)
- Initial Teacher Licensure - K-12 Physical Education (MA, Education) (p. 382)
- Rhetoric and Literary Studies (MAEd (p. 387))
- Teaching and Leadership (MA, Education) (p. 386)
- Exceptional Learner/Special Education (EDSE) (MA, Education) (p. 377)

Master of Business Administration

The Colorado Mesa University online MBA is a challenging program designed to prepare graduates for the changing business world. The degree is awarded after successful completion of 36-39 semester hours of rigorous study. The program is designed to provide the student with a broad background in business. To this end, students acquire knowledge of management operations, an appreciation of the interrelationships of the functional areas of business, an understanding of the economic, political and social environment in which businesses function, and behavioral and leadership skills that are essential to the manager's role in the implementation of business decisions. The MBA program endeavors to provide an atmosphere conducive to the development of each student's ability to think in a creative manner. The program makes extensive use of the latest learning management systems to disseminate course materials, lectures, simulations, group projects, case studies, and applied research. All of our courses are taught by qualified graduate faculty with exceptional experience in higher education and industry.

The program is open to all baccalaureate-holding applicants who can demonstrate academic preparation in the core requirements including statistics, computer literacy, management, finance, marketing, and accounting, regardless of the undergraduate field of study. Students without this background or adequate depth of background may be advised to complete appropriate leveling courses.

For information about admission to the MBA Program, please see MBA Admission Instructions.

Candidates not meeting all the specific requirements may be admitted under conditional status.

MBA for Those Without a Business Degree

The MBA program is open to students with a non-business undergraduate degree. As part of the admissions process, transcripts and professional experience will be reviewed. Based on this evaluation, leveling courses may be recommended. Details are outlined in the MBA Admission Instructions.

General Policies

Up to nine credit hours may be taken in a "non-degree seeking student" status and later applied to the program requirements. Up to thirty

percent of the credit hours required, with a grade of "B" or higher, may be transferred from a regionally accredited institution into the program. Additional information may be found in the Transfer Credit section (p. 85).

Requirements

See Business Administration (MBA) (p. 202) for a complete overview of all requirements, important information, and suggested course sequencing for the program.

Please see the MBA Director for Track Courses (6–15 hours). Tracks include the Professional Track, the Management Information Systems Track, and the Sports Management Track.

Students are required to meet with their advisor and submit information by the appropriate deadlines.

All graduate courses for the MBA are listed in the Course Descriptions (p. 850) section of this catalog in the prefix areas of Accounting (ACCT) (p. 852), Business Administration (BUGB) (p. 880), Computer Information Systems (CISB) (p. 886), Economics (ECON) (p. 906), Education (EDUC) (p. 907), Entrepreneurship (ENTR) (p. 927), Finance (FINA) (p. 931), Human Resource Management (HRMA) (p. 950), Kinesiology (KINE) (p. 951), Management (MANG) (p. 959), and Marketing (MARK) (p. 960).

Master of Physician Assistant Studies

The Bechtel Physician Assistant Studies Program consists of didactic and clinical academic work over the course of 28 months. Graduates of the program will be eligible to sit for the national certification examination for physician assistants through the National Commission on the Certification of Physician Assistants (NCCPA).

The Accreditation Review Commission on Education for the Physician Assistant (ARC-PA) has granted **Accreditation-Continued** status to the Bechtel Physician Assistant Studies Program sponsored by Colorado Mesa University. Accreditation-Continued is an accreditation status granted when a currently accredited program is in compliance with the ARC-PA *Standards*.

Accreditation remains in effect until the program closes or withdraws from the accreditation process or until accreditation is withdrawn for failure to comply with the *Standards*. The approximate date for the next validation review of the program by the ARC-PA will be **September 2033**. The review date is contingent upon continued compliance with the Accreditation *Standards* and ARC-PA policy.

For updates on program accreditation and general program information, please visit the Masters of Physician Assistant Studies website.

For a complete list of program requirements, please see the program sheet (p. 702).

Master of Science in Athletic Training

Program Overview

The Athletic Training program is a professional program offered in the Department of Kinesiology, leading to a Master of Science in Athletic Training degree (MSAT).

Athletic trainers (ATs) are highly qualified, multi-skilled health care professionals who collaborate with physicians to provide preventative services, emergency care, clinical diagnosis, therapeutic intervention and rehabilitation of injuries and medical conditions. Athletic trainers work under the direction of a physician as prescribed by state licensure statutes.

The MSAT program is a two-year (six-semesters), year-round program that is accredited by the Commission on Accreditation of Athletic Training Education (CAATE). Admission into the program is competitive. The MSAT program ensures the highest quality of education by offering collective learning experiences that enable the student to successfully challenge the Board of Certification examination and pursue numerous career paths as a certified athletic trainer. Certified athletic trainers gain employment in a variety of settings including but not limited to: high school/college athletic programs, professional sport programs, outpatient physical therapy/sports medicine clinics, industrial/corporate settings, and the US military.

There are two types of applicants for the MSAT program. The first type is the **Traditional MSAT** applicant who has earned an undergraduate degree. The second type of applicant has not yet earned their undergraduate degree and is currently enrolled at CMU and may qualify to pursue the MSAT as part of a Bachelors degree **3+2 MSAT** concurrent enrollment program.

Program Accreditation

Colorado Mesa University Master of Science in Athletic Training is accredited by the Commission on Accreditation of Athletic Training Education (CAATE). The program earned a 5-year initial accreditation in February 2021 and holds the accreditation status of *Active-in good standing*.

Requirements

The Master of Science in Athletic Training offers two options for admission. See the program below for complete overview of all requirements, important information, and suggested course sequencing.

- Athletic Training (MS) (p. 166)

Master of Science in Nursing

The Master of Science in Nursing (MSN) degree program prepares nurses for advanced practice primary care roles in their population of interest. MSN students choose one of two tracks as their substantive area of study: family nurse practitioner (FNP), or adult-gerontology nurse practitioners (AGNPs). Graduates formulate clinical, administrative, or policy decisions to promote health among patients, families, or communities along the continuum of wellness and illness. The MSN curriculum is based on competencies and guidelines established by the Colorado Board of Nursing, the American Association of Colleges of Nursing (AACN), and the National Task Force for Quality Nurse Practitioner Education (NTF). Graduates of the MSN FNP and AGNP tracks are eligible to take the national nurse practitioner certification examinations and are eligible for state licensure as nurse practitioners.

MSN courses are delivered on-line, allowing students to reside in their home communities. However, students travel to complete clinical hours (e.g., rural health). Objective structured clinical exams (OSCEs), and graduate program student intensive (GPSI) sessions are held in both in-

person and online formats. Graduates of the MSN program, regardless of track, may also pursue doctoral education (e.g., PhD, DNP, EdD).

Admission to Colorado Mesa University does not guarantee admission to the MSN Program. The MSN Program is accredited by the Commission on Collegiate Nursing Education (CCNE).

MSN curriculum, regardless of track, includes advanced pharmacology, advanced pathophysiology, advanced health assessment, nursing theory, and evidence-based practice. The FNP track includes coursework in primary care (pediatrics, adults, older adults) and care of rural/underserved populations. The AGNP track includes coursework in primary care (adults, older adults) and care of rural/underserved populations. Students in both nurse practitioner tracks are required to complete a minimum of 750 direct care clinical hours.

MSN coursework ends with a capstone service-learning project during which students partner with health care and/or academic stakeholders to develop, implement, or evaluate a project. Students present their capstone projects publicly prior to graduation. Students are expected to submit their original work for presentation at area conferences.

Admission to the MSN Program

Admission to the MSN-FNP & MSN-AGNP programs is competitive. Students apply through the Centralized Application Service for Nursing at the American Association of Colleges of Nursing. The MSN programs are rigorous and prepare nurses as Advanced Practice Registered Nurses (APRNs).

- Earned bachelor's degree in nursing (BSN) from an accredited program.
- Unencumbered registered nurse (RN) license from a US state or territory. This must be maintained for the duration of enrollment in the Graduate Nursing Program.
- Cardiopulmonary resuscitation (CPR) for health care providers. This must be maintained for the duration of enrollment in the Graduate Nursing Program.
- Malpractice insurance as a graduate nursing student. Nurse practitioner students must obtain nurse practitioner student malpractice insurance once they begin clinical coursework. All students must maintain malpractice insurance for the duration of their enrollment in the Graduate Nursing Program.
- Criminal background check.
- Drug screen.
- Current immunizations. This must be maintained for the duration of enrollment in the Graduate Nursing Program. Exemptions are accepted by the program, based on the state of Colorado's policies. Immunization status may be evaluated by health care organizations prior to student placement.
- All students must provide proof of training in cultural competency and the Health Insurance Portability and Accountability Act (HIPAA) prior to enrollment in clinical courses.

General Policies

Up to nine credit hours may be taken as a non-degree seeking status and later applied to program requirements. Students can transfer up to 30% of eligible credits from another accredited institution provided they meet the general transfer policies of CMU and are approved by the Graduate Program Director. Coursework considered for transfer must be completed with a grade of "B" or higher. Additional information may be found in the graduate transfer credit section of the catalog.

Requirements

The Department of Health Sciences offers three Master of Science in Nursing cognate options. See the programs below for complete overviews of all requirements, important information, and suggested course sequencing.

- Adult-Gerontology Nurse Practitioner (MSN) (p. 663)
- Family Nurse Practitioner, Nursing (MSN) (p. 665)
- Nursing Education, Nursing (MSN) (p. 667)

Master of Science in Occupational Therapy

The Master of Science in Occupational Therapy (MSOT) program prepares students to become qualified occupational therapists. Occupational therapy (OT) is a health care profession that focuses on helping people regain, develop, and master everyday skills to live independent, productive, and satisfying lives. Occupational therapists promote health and functioning through the therapeutic use of meaningful activities.

The MSOT program consists of four didactic semesters, and two 12-week clinical fieldwork rotations. The didactic portion follows a cohort model where students enter the program together and progress as a group. Students complete their fieldwork rotations at a variety of clinical and community-based settings. The MSOT program was designed to meet all accreditation requirements set by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA). In August of 2023, ACOTE granted the MSOT program a seven-year accreditation.

The National Board for Certification in Occupational Therapy (NBCOT) is the credentialing agency responsible for certifying occupational therapy practitioners in the United States. The NBCOT's certification process ensures that occupational therapists have the knowledge and skills necessary to practice safely and effectively. Graduates of the MSOT program will be eligible to take the NBCOT exam. Successful completion of the exam and state licensure are required to become an occupational therapist. The OTR/L credential indicates an occupational therapist is registered with the NBCOT and licensed to practice in their state.

Accreditation

The profession's accrediting body, the Accreditation Council for Occupational Therapy (ACOTE), has granted accreditation for seven years to this program (2023-2029). Graduates of the program will be eligible to sit for the national certification examination for occupational therapists through the National Board for Certification in Occupational Therapy (NBCOT) and will be able to apply for licensure through the professional licensure board in the state in which the graduate wishes to practice.

ACOTE can be contacted at:

Accreditation Council for Occupational Therapy Education (ACOTE®)
6166 Executive Blvd., Suite 200
North Bethesda, MD 20852-4929
301.652.6611
accred@aota.edu

Requirements

A cumulative minimum grade point average (GPA) of 3.0 in undergraduate coursework and prerequisite coursework from an accredited university. Evidence of completion of a bachelor's degree and all prerequisite courses must be received prior to the start of the program. Contact the MSOT program or the Occupational Therapist Centralized Application Service (OTCAS) for the complete list of admission requirements.

For a complete list of program requirements, please visit the Occupational Therapy Program website.

Master of Science in Sport Management

Program Overview

The Master of Science in Sport Management serves to develop students' conceptual skills, theoretical comprehension, and practical knowledge in order that they are prepared to become the next generation of leaders in the sport industry. The degree leads to a wide variety of career choices. Sport management graduates work in school, university and college settings as athletic administrators, public relations/marketing directors, or in professional or amateur sports areas.

Admission Requirements

- Applicants must have a baccalaureate degree from a regionally accredited institution.
- Applicants must achieve a score of 385 or higher on the Miller Analogies Test or a score of 286 or higher on the Graduate Record Examination (850 on the old exam) (verbal and quantitative) or 380 on the GMAT. Students must request the scores be sent to the CMU Admissions Office.
- Applicants must have a grade point average (GPA) of at least 3.0 on a 4.0 scale on the most recent 60 credit hours.
- Applicants must provide a formal Statement of Goals that should explain in at least 500 words why they want to be admitted into the program and what they plan to do with the degree.
- Applicants must provide a current resume or curriculum vitae.
- Applicants must provide two letters of recommendation from individuals who can speak to the applicant's academic potential and professional capabilities. One should be from a university faculty member who is familiar with the applicant's work as a student. One should come from a supervisor in which they have evaluated the applicant's current or prior work.

Program Requirements

For a complete list of program requirements, please see the program sheet (p. 765).

Master of Social Work

Overview

The MSW program has HLC approval and is in the CSWE accreditation process.

"The purpose of the social work profession is to promote human and community well-being. Guided by a person-in-environment framework, a global perspective, respect for human diversity, and knowledge based on scientific inquiry, the purpose of social work is actualized through its quest for social, racial, economic, and environmental justice, the creation of conditions that facilitate the realization of human rights, the elimination of poverty, and the enhancement of life for all persons, locally and globally. To fully realize our commitment to social justice, social workers must engage in anti-racist, culturally responsive social work practice at the individual, family, group, organizational, community, research, and policy levels, informed by the theories and voices of those who have been marginalized. In an ever-shifting social and environmental context, social work is agile, responsive, and generative.

Social work education at the baccalaureate, master's, and doctoral levels shapes the profession's future through the education of competent professionals, the generation of knowledge, the promotion of research-informed practice through scientific inquiry, and the exercise of leadership. Social work education prepares competent policy practitioners to develop socially responsible policy, address the policy implications of their work, and implement strategies that result in a more engaged public and better-educated policymakers to address inequalities and inequities.

Professional social workers are found in a wide variety of settings, including schools, hospitals, mental health clinics, senior centers, elected offices, private practices, prisons, military, corporations, and in numerous public and private agencies that serve individuals and families in need. They often specialize in one or more of the following practice areas:

- **Addictions & Substance Use Treatment** (alcohol and drug abuse, addiction recovery, substance abuse treatment centers)
- **Child Welfare** (abuse and neglect, adoption, foster care)
- **Clinical & Private Practice** (therapy for individuals, couples, families; mental health, addiction, divorce counseling)
- **Forensic Social Work** (jails, prisons, courts, public defenders, district attorneys, alternative defense, specialty courts)
- **Geriatric Social Work** (nursing homes, home health care, Alzheimer's units)
- **Hospice & Palliative Care** (end-of-life care, grief counseling)
- **International Social Work** (United Nations, WHO, global social work, economic stress, community organizing, liberation work)
- **Medical Social Work** (inpatient and outpatient hospitals, health clinics, specialty care)
- **Military & Veterans Services** (support for active duty and retired personnel, both U.S. and international)
- **Police & Crisis Intervention** (co-responder programs, crisis intervention teams, police department therapists)
- **Psychiatric Social Work** (mental health centers, medical hospitals, psychiatric hospitals)
- **Public Health & Policy** (health advocacy, social policy reform, population health initiatives)
- **School Social Work** (support services in public and private K-12 schools)
- **Trauma & Violence Response** (combat trauma, sexual violence, human trafficking, refugee support, natural disaster relief)

All CMU master-level graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, information literacy, and ethical reasoning. In addition to these campus-wide student learning outcomes, a graduate of this program will be able to:

1. Demonstrate Ethical and Professional Behavior\ \ Demonstrate ethical decisions making by applying the standards of the NASW

Code of Ethics, relevant laws and regulations, models for ethical decision-making, ethical conduct of research, and additional codes of ethics as appropriate to the context; demonstrate professional demeanor in behavior; appearance; and oral, written, and electronic communication; manage personal and professional value conflicts and affective reactions; use technology ethically and appropriately to facilitate practice outcomes; and use supervision and consultation to guide professional judgment and behavior. (Applied Learning, Communication Fluency, Critical Thinking, Ethical Reasoning)\

2. Engage in Anti-Racism, Diversity, Equity, and Inclusion in Practice \ \ Demonstrate anti-racist social work practice at the individual, family, group, organizational, community, research, and policy levels, informed by the theories and voices of those who have been marginalized; demonstrate cultural humility applying critical reflexivity, self-awareness, and self-regulation to manage the influence of bias, power, privilege, and values in working with clients and constituencies acknowledging them as experts of their own lived experiences. (Specialized Knowledge/Applied Learning, Communication Fluency, Critical Thinking, Information Literacy, Ethical Reasoning)\
3. Advance Human Rights and Social, Racial, Economic, and Environmental Justice\ \ Advocate for human rights at the individual and system levels; and \ engage in practices that advance social, racial, economic, and environmental justice for equal justice and the dismantling of structural racism and oppression. (Specialized Knowledge/Applied Learning, Communication Fluency, Critical Thinking, Information Literacy, Ethical Reasoning)\ \
4. Engage in Practice Informed Research and Research informed Practice\ \ Apply research findings to inform and improve practice, policy, and programs; and identify strategies for use of quantitative and qualitative methods of research to advance the purposes of social work. (Quantitative Fluency, Critical Thinking, Information Literacy)\ \
5. Engage in Policy Practice\ \ Assess how social welfare policies affect the delivery of and access to social services; and apply critical thinking to analyze, formulate, and advocate for policies that advance human rights and social, racial, economic, and environmental justice. (Applied Learning, Communication Fluency, Critical Thinking, Ethical Reasoning\
6. Engage with Individuals, Families, Groups, Organizations, and Communities\ \ Apply knowledge of human behavior and person-in-environment, and other multidisciplinary theoretical frameworks to engage with clients and constituencies; and use empathy, reflection, and interpersonal skills to effectively engage diverse clients and constituencies. (Applied Learning, Communication Fluency, Critical Thinking, Information Literacy)\
7. Assess with Individuals, Families, Groups, Organizations, and Communities\ \ Apply knowledge of human behavior and person-in-environment and other culturally responsive multidisciplinary theoretical frameworks when assessing clients and constituencies; and demonstrate respect for client self-determination during the assessment process collaborating with clients and constituencies in developing mutually agreed-on goals. (Specialized Knowledge, Applied Learning, Communication Fluency, Critical Thinking, Ethical Reasoning)\ \
8. Intervene with Individuals, Families, Groups, Organizations, and Communities\ \ Engage with clients and constituencies to critically choose and implement culturally responsive, evidenced-based interventions to achieve mutually agreed-on practice goals and enhance capacities of clients and constituencies; and incorporate culturally responsive methods to negotiate, mediate, and advocate, with and on behalf of clients and constituencies. (Specialized Knowledge, Applied Learning, Communication Fluency, Critical Thinking, ethical Reasoning)\
9. Evaluate with Individuals, Families, Groups, Organizations, and Communities\ \ Select and use appropriate methods for evaluation of outcomes; and critically analyze outcomes and apply evaluation findings to improve practice effectiveness with individuals, families, groups, organizations, and communities. (Specialized Knowledge, Applied Learning, Quantitative Fluency, Communication Fluency, Critical Thinking, Ethical Reasoning)\

Important Information about this program:

- The MSW program offers Foundation and Advanced Standing.
- MSW Foundation Program is open to all students who have completed a baccalaureate degree from an accredited university. This is a two-year program that requires 74 credits with 1050 hours of practicum/internship training.
- MSW Advanced Standing is open to all students who have completed a baccalaureate of Social Work degree from a CSWE accredited university. CMU allows admission into the advanced standing program with the completion of your baccalaureate of Social Work within the last five years. This is a one-year program and requires 44 credits with 600 hours of internship training.
- The MSW is a degree that allows for licensure (e.g., LCSW) in all 50 states.
- MSW Program acceptance is required prior to enrollment. Please see the program website for specific admission requirements.

Requirements

The Department of Social and Behavioral Sciences offers two Master of Social Work options. See the programs below for complete overviews of all requirements, important information, and suggested course sequencing.

- Social Work: Advanced Standing (MSW) (p. 739)
- Social Work: Foundation (MSW) (p. 742)

Doctor of Nursing Practice

The Doctor of Nursing Practice (DNP) degree is for nurses who are interested in an advanced practice role as a family nurse practitioner (FNP) and nurse leader in healthcare systems. The DNP-FNP curriculum is based on guidelines and competencies established by the Colorado Board of Nursing, American Association of Colleges of Nursing (AACN), and the National Task Force for Quality Nurse Practitioner Education (NTF). DNP graduates work as FNPs in direct patient care and as leaders in academic, healthcare, or community-based systems. DNP-FNP program graduates are eligible to take the national FNP certifying examination and are eligible for licensure as an FNP. Courses are delivered via an on-line format allowing students to reside in their home communities. However, students travel to complete clinical hours (e.g., rural health). Objective structured clinical exams (OSCEs), and graduate program student intensive (GPSI) sessions are held in both in-person and online formats. The DNP program requires students to complete a minimum of 1000 clinical hours, 750 of which must be in direct care. The remainder of the hours may be in indirect care (e.g., simulation,

leadership, health policy), including hours spent on the students' DNP scholarly projects.

Admission to the University does not guarantee admission to the program. The DNP program is accredited by the Commission on Collegiate Nursing Education (CCNE).

Coursework includes advanced pharmacology, advanced pathophysiology, advanced health assessment, primary care across the lifespan (pediatrics, adults, older adults), rural/underserved populations, mental and behavioral health, quality improvement, health policy, leadership, and health systems change. The last two years of the program include students' completion of their DNP scholarly projects. The scholarly project requires students to develop, implement, and evaluate a primary care-focused intervention to address a clinical gap in practice. Students present their scholarly project publicly and submit their original work for publication at the conclusion of the DNP program.

Admission to the DNP-FNP Program

Admission to the DNP-FNP Program is competitive. Students submit an application through the Centralized Application Service for Nursing at the American Association of Colleges of Nursing. The DNP-FNP program is rigorous and prepares nurses as Advanced Practice Registered Nurses (APRNs). The DNP degree is the terminal clinical degree track for nursing. Admission is on a rolling schedule with final cohorts starting in the fall semester. Applicants are encouraged to apply early.

Students must have the following for the duration of their time in the Graduate Nursing Program:

- Earned bachelor's degree in nursing (BSN) from an accredited program.
- Unencumbered registered nurse (RN) license from a US state or territory. This must be maintained for the duration of enrollment in the Graduate Nursing Program.
- Cardiopulmonary resuscitation (CPR) for health care providers. This must be maintained for the duration of enrollment in the Graduate Nursing Program.
- Malpractice insurance as a nurse practitioner student. This must be maintained for the duration of enrollment in the Graduate Nursing Program.
- Criminal background check.
- Drug screen.
- Current immunizations. This must be maintained for the duration of enrollment in the Graduate Nursing Program. Exemptions are accepted by the program, based on the state of Colorado's policies. Immunization status may be evaluated by health care organizations prior to student placement.
- All students must provide proof of training in cultural competency and the Health Insurance Portability and Accountability Act (HIPAA) prior to enrollment in clinical courses.

General Policies

Up to nine credit hours may be taken as non-degree seeking and later applied towards program requirements. Students can transfer up to 30% of eligible credits from another accredited institution into their degree plan provided they meet the general transfer policies of CMU and are approved by the Graduate Program Director. Coursework considered for transfer must be completed with a grade of "B" or higher. Additional information may be found in the graduate transfer credit section of the catalog.

Requirements
Program of Study

See Doctor of Nursing Practice - Family Nurse Practitioner (DNP-FNP) (p. 661) for information on program requirements.

Doctor of Physical Therapy

The Physical Therapy program is a professional program leading to a Doctor of Physical Therapy (DPT) degree.

Physical therapists are health care professionals who are movement experts who improve quality of life by prescribing exercise, incorporating hands-on care, and patient education.

The professional curriculum is 8 semesters in duration, 105 credits, and includes 34 weeks of full-time clinical education over 4 separate rotations. The rotations are 6, 8, 8 & 12 weeks in duration. Students complete these rotations at a variety of clinical sites (e.g. acute care, long term rehabilitation, outpatient orthopedic, etc.). The program has been designed to meet all requirements associated with the Commission on Accreditation in Physical Therapy Education (CAPTE).

To practice physical therapy, students must be licensed in the state in which they desire to practice. To obtain licensure, students must graduate from an accredited program and pass the National Physical Therapy Exam (NPTE).

Effective April 25, 2023, Colorado Mesa University has been granted Candidate for Accreditation status by the Commission on Accreditation in Physical Therapy Education (3030 Potomac Ave., Suite 100, Alexandria, Virginia 22305-3085; phone: 703-706-3245; email: accreditation@apta.org). If needing to contact the program/institution directly, please call 970-248-2266 or email dptprogram@coloradomesa.edu.

Candidate for Accreditation is an accreditation status of affiliation with the Commission on Accreditation in Physical Therapy Education that indicates the program may matriculate students in technical/professional courses. Achievement of Candidate for Accreditation status does not assure that the program will be granted Initial Accreditation.

Candidacy is considered to be an accredited status, as such the credits and degree earned from a program with Candidacy status are considered, by CAPTE, to be from an accredited program. Therefore, students in the charter (first) class should be eligible to take the licensure exam even if CAPTE withholds accreditation at the end of the candidacy period. That said, it is up to each state licensing agency, not CAPTE, to determine who is eligible for licensure. Information on licensing requirements should be directed to the Federation of State Boards of Physical Therapy (FSBPT; www.fsbpt.org) or specific state boards (a list of state boards and contact information is available on FSBPT's website).

For a complete list of program requirements, please see the program sheet (p. 699).

CENTER FOR TEACHER EDUCATION (LICENSURE)

The Center for Teacher Education offers licensure programs in Elementary, Secondary, K-12, and Early Childhood. An initial license to teach in public schools in the State of Colorado requires each teacher candidate to complete a degree including a sequence of professional education courses that includes extensive field experience in classrooms. Teaching licensure coursework and field experiences are completed through the Center for Teacher Education, while the content degree coursework is completed through the academic department of the discipline area, with both departments coordinating to assist teacher candidates in completing the program. Formal admission to the Center for Teacher Education is required of all students expecting to obtain a Colorado Educator License in any teaching field.

In addition to the Bachelor's programs that lead to a teaching license, for students who already possess an undergraduate degree, The Center for Teacher Education offers an intensive, post-baccalaureate pathway to a teaching license through Initial Teacher Licensure programs (See Graduate Programs in Education below).

The Center for Teacher Education also offers added endorsement, graduate programs in Special Education and Principal Licensure. These graduate, endorsement programs may be completed as graduate certificates or applied towards a Master of Arts in Education (See Graduate Programs in Education below).

In order to complete all licensure requirements in a timely manner, it is important that students contact the Center as soon as possible after enrolling at Colorado Mesa University. For information on the graduate and/or MA programs, see the Graduate Programs section.

Content

- Early Childhood Education – Special Education (p. 98)
- Elementary Education Licensure – Undergraduate (p. 98)
- Secondary Education Licensure – Undergraduate (p. 98)
- K-12 Education Licensure – Undergraduate (p. 99)
- Graduate Programs in Education (p. 99)

Contact Information

Center for Teacher Education
Dominguez Hall, Suite 109
970.248.1786

Early Childhood Education - Special Education

(Colorado Initial Teaching License in Early Childhood Education, Birth to Age 8 AND Colorado Teaching Endorsement in Early Childhood Special Education: Birth to Age 8).

Students should meet with a Center for Teacher Education advisor as soon as possible in order to obtain information specific to the early childhood/early childhood special education license program. The components of the Colorado Mesa University early childhood/early childhood special education license program are as follows:

1. Academic Major: All early childhood/early childhood special education license students must complete the requirements for a Bachelor of Arts in Education.
2. Admission: Formal admission to the Center for Teacher Education, usually after their sophomore year.
3. Professional Education Sequence for Early Childhood/Early Childhood Special Education Teacher License/Endorsement: Coursework must be taken in the prescribed sequence; see Suggested Course Plan in the links below.

    - Education: Early Childhood Special Education, Early Childhood Education (BA) (p. 345)

All teacher license programs require passing the PRAXIS II professional license exams prior to beginning the student teaching semester.

Elementary Education Licensure – Undergraduate

(Colorado Initial Teaching License in Elementary Education, Grades K through 6.)

Students should meet with a Center for Teacher Education advisor as soon as possible in order to obtain information specific to the elementary education license program. The components of the Colorado Mesa University elementary license program are as follows:

1. Academic Major: All elementary license students must complete the requirements for a Bachelor of Arts in Liberal Arts (Interdisciplinary Studies), with a concentration in English, Mathematics, OR Social Science.
2. Admission: Formal admission to the Center for Teacher Education (usually prior to junior year).
3. Professional Education Sequence for Elementary Teacher License: Coursework must be taken in the prescribed sequence; see Suggested Course Plan in the links below.

- Education: Elementary Teaching, English, Liberal Arts (BA) (p. 544)
- Education: Elementary Teaching, Mathematics, Liberal Arts (BA) (p. 547)
- Education: Elementary Teaching, Social Science, Liberal Arts (BA) (p. 551)

All teacher license programs require passing the PRAXIS II professional license exams prior to beginning the student teaching semester.

Secondary Education Licensure – Undergraduate

Colorado Initial Teaching License in Secondary Education, Grades 7 through 12, Bachelor of Arts or Science in one of the following academic disciplines: Biology, English, History, Mathematics, Physical Science (Geology), or Spanish (K-12).

Students should meet with a Center for Teacher Education advisor as soon as possible in order to obtain information specific to the secondary education license programs. The following are components of the Colorado Mesa University secondary license programs:

1. Academic Major: All secondary license students must complete the requirements for a Bachelor of Arts or Science in one of the following

academic disciplines: Biology, English, History, Mathematics, Physical Science (Geology), or Spanish.
2. Admission: Formal admission to the Center for Teacher Education (usually during the junior year).
3. Professional Education Sequence for Secondary Teacher License: EDUC Coursework must be taken in the prescribed sequence. Refer to the applicable program listed below.

- Education: Secondary Education, Biological Sciences (BS) (p. 192)
- Education: Secondary Education, English (BA) (p. 418)
- Education: Secondary Education, Geosciences (BS) (p. 469)
- Education: Secondary Education, History (BA) (p. 502)
- Education: Secondary Education, Mathematics (BS) (p. 595)
- Education: Secondary Education, Spanish (BA) (p. 757)

All teacher license programs require passing the PRAXIS II professional license exams prior to beginning the student teaching semester.

K-12 Education Licensure – Undergraduate

(Colorado Initial Teaching License in Art, Music or Kinesiology, Grades Kindergarten through 12)

Students should meet with a Center for Teacher Education advisor as soon as possible in order to obtain information specific to the K-12 Education license program in Art, Music or Kinesiology. Following are the components of the Colorado Mesa University K-12 teacher license programs.

1. Academic Major: K-12 license students must complete the requirements for the Bachelor of Arts in Kinesiology, a Bachelor of Fine Arts in Art, or a Bachelor of Music Education.
2. Admission: Formal admission to the Center for Teacher Education (usually during the junior year).
3. Professional Education Sequence for K-12 Teacher Licensure: Coursework must be taken in the prescribed sequence. Refer to the applicable program listed below.

    - Education: K-12 Education, Art (BFA) (p. 149)
    - Education: K-12 Education, Kinesiology (BA) (p. 532)
    - Education: K-12 Music Education (BME) (p. 647)

All teacher license programs require passing the PRAXIS II professional license exams prior to beginning the student teaching semester.

Graduate Programs in Education

For information on graduate programs in Education, see the following pages:

- Education: Educational Leadership (EDLD) (Graduate Certificate) (p. 393)
- Education: Educational Leadership (EDLD) (MA, Education) (p. 375)
- Education: Exceptional Learner/Special Education (EDSE) (Graduate Certificate) (p. 394)
- Education: Exceptional Learner/Special Education (EDSE) (MA, Education) (p. 377)
- Education: Initial Teacher Licensure - Elementary (Graduate Certificate) (p. 396)
- Education: Initial Teacher Licensure - Elementary (MA, Education) (p. 379)
- Education: Initial Teacher Licensure - Secondary (Graduate Certificate) (p. 398)
- Education: Initial Teacher Licensure - Secondary (MA, Education) (p. 380)
- Education: Initial Teacher Licensure K-12 Physical Education (Graduate Certificate) (p. 384)
- Education: Initial Teacher Licensure K-12 Physical Education (MAEd) (p. 382)
- Education: Rhetoric and Literary Studies (MAEd) (p. 387)
- Education: Teaching and Leadership (EDTL) (p. 386) (MA, Education) (p. 386)

The following programs are inactive and not accepting applicants:

- Education: English for Speakers of Other Languages (ESOL) (Graduate Certificate)
- Education: English for Speakers of Other Languages (ESOL) (MA, Education)
- Education: Applied Mathematics (MAEd)
- Education: Social Science (MAEd)

AREAS OF STUDY

Select an area of study from the accordion below for more information on the programs offered. Similarly, information about the programs offered within each discipline can be found on the Explore Degrees & Programs page.

Areas of Study List

- Accounting (p. 101)
- Addiction Studies (p. 111)
- Agriculture Science (p. 113)
- Airframe and Powerplant Mechanic (p. 116)
- Animation, Film, Photography, and Motion Design (p. 119)
- Applied Anthropology and Geography (p. 126)
- Applied Business (p. 129)
- Applied Technology (p. 143)
- Archaeology (p. 147)
- Art (p. 148)
- Athletic Coaching and Officiating (p. 164)
- Athletic Training (p. 166)
- Aviation Technology (p. 169)
- Baking and Pastry (p. 177)
- Biological Sciences (p. 181)
- Business (p. 199)
- Chemistry (p. 248)
- Civil Engineering (p. 256)
- Classical Studies (p. 257)
- Commercial Driver's License Training (p. 259)
- Communication Studies (p. 261)
- Computer Information Systems (p. 263)
- Computer Science (p. 274)
- Construction Electrical (p. 284)
- Construction Management (p. 288)
- Construction Technology (p. 292)
- Criminal Justice (p. 295)
- Culinary Arts (p. 309)
- Cybersecurity (p. 313)
- Dance (p. 315)
- Digital Filmmaking (p. 323)
- Education: Early Childhood (p. 344)
- Education: Teacher Licensure (p. 373)
- Electrical/Computer Engineering (p. 403)
- Electric Lineworker (p. 404)
- Emergency Management and Disaster Planning (p. 408)
- Emergency Medical Services (p. 410)
- Energy Management/Landman (p. 416)
- Engineering (p. 417)
- English (p. 418)
- Environmental Science and Technology (p. 431)
- Exercise Science (p. 438)
- Fire Science Technology (p. 443)
- Fitness and Health Promotion (p. 452)
- Forensic Anthropology (p. 455)
- Forensic Science (p. 457)
- Geographic Information Science and Technology (p. 458)
- Geosciences (p. 462)
- Gerontology (p. 478)
- Graphic Design (p. 483)
- Heating, Ventilation, and Air Conditioning (p. 493)
- History (p. 499)
- Hospitality Management (p. 508)
- Humanities (p. 514)
- Information and Communication Technology (p. 517)
- Innovation (p. 526)
- International Studies (p. 527)
- Kinesiology (p. 529)
- Land Surveying and Geomatics (p. 538)
- Liberal Arts (p. 543)
- Manufacturing Technology (p. 561)
- Mass Communication (p. 580)
- Mathematics (p. 586)
- Mechanical Engineering (p. 606)
- Mechanical Engineering Technology (p. 607)
- Mechatronics (p. 613)
- Medical Laboratory Technician (p. 619)
- Medical Office Assistant (p. 622)
- Music (p. 626)
- Nurse Aide (p. 658)
- Nursing (p. 660)
- Occupational Therapy (p. 682)
- Outdoor Recreation Industry Studies (p. 685)
- Peace Officer Standards and Training (POST) (p. 690)
- Pharmacy Technician (p. 693)
- Philosophy (p. 697)
- Physical Therapy (p. 699)
- Physician Assistant (p. 702)
- Physics (p. 705)
- Political Science (p. 712)
- Psychology (p. 717)
- Radiologic Sciences (p. 725)
- Real Estate (p. 731)
- Respiratory Therapy (p. 733)
- Social Science (p. 736)
- Social Work (p. 738)
- Sociology (p. 749)
- Spanish (p. 754)
- Sport Management (p. 765)
- Sports Medicine (p. 773)
- Surgical Technology (p. 775)
- Sustainability Practices (p. 777)
- Sustainable Agriculture (p. 777)
- Teacher Education (p. 781)
- Theatre Arts (p. 781)
- Transportation Services (p. 797)

- Unmanned Aircraft Systems (p. 812)
- Veterinary Technology (p. 814)
- Viticulture and Enology (p. 817)
- Watershed Science (p. 826)
- Wildland Fire Management (p. 827)
- Women's and Gender Studies (p. 830)

Acceptance of Registration and Admission

Acceptance of registration by Colorado Mesa University and admission to any education program at the University does not constitute a contract or warranty that the University will continue to offer the program in which a student is enrolled. The University expressly reserves the right to change, phase out or discontinue any program. The listing of courses contained in any University bulletin, catalog or schedule is by way of announcement only and shall not be regarded as an offer of contract. The University expressly reserves the right to:

1. add or delete programs and/or courses from its offerings,
2. change times or locations of courses or programs,
3. change academic calendars without notice,
4. cancel any course for insufficient registrations, or
5. revise or change rules, charges, fees, schedules, courses, requirements for degrees, and other policies or regulations affecting students, including, but not limited to, evaluation standards, whenever the same is in the best interests of the University.

NOTE: Students should consult the Financial Aid Office for eligibility requirements of undergraduate & graduate certificates.

Assessment of Student Learning

Colorado Mesa University is committed to providing quality education for students across all disciplines through a supportive learning environment. Assessment of student learning is a process used to measure student progress in the knowledge and skills necessary to be successful after graduation. All students will participate in the process by engaging in assessment activities through submitting course assignments, taking examinations, completing surveys and/or writing standardized tests. Evidence collected through assessment assists faculty in program improvement at the certificate, undergraduate and graduate level.

Student learning at CMU is centered on specialized knowledge and applied learning in the discipline as well as the intellectual skills of communication fluency, quantitative fluency, information literacy, personal and social responsibility, and critical thinking. Assessment also involves student learning at the co-curricular level in a variety of areas. Data gathered will be evaluated in aggregate form and reported to respective members of the CMU community as well as accreditation organizations. Assessment is a key element to improve teaching and learning, and to enhance the quality of programs at the University.

Accounting

Program Description

Accounting is a degree with lots of possibilities. Every business needs accounting expertise, whether it's a Wall Street law firm, a professional sports team, a movie production company or a rock band. With the proper accounting education, employment options are endless.

The Public Accounting concentration provides students with basic business skills as well as the accounting knowledge needed to pass the Certified Public Accountant (CPA) exam. Graduates of CMU's program have a very high CPA exam pass rate and are heavily recruited by local and regional CPA firms.

The General Accounting concentration is designed for undergraduate students who do not wish to pursue CPA certification. This program provides students with basic business skills as well as accounting knowledge needed to work in an accounting department in private industry or government.

The Accounting minor offers students majoring in other areas the opportunity to enhance their degrees with basic accounting knowledge. Since all businesses rely heavily on accounting functions, graduates with an accounting minor have a competitive advantage, particularly in the area of decision-making. Accounting knowledge is critical for business and, independent of major, the more accounting knowledge students have, the better prepared students will be for management positions.

The Accounting program also offers an option of a five year (3+2) program which allows students to graduate with a Bachelor of Science in Accounting and a Master of Business Administration. This combination prepares students to earn the hours needed to sit for the CPA exam. Through careful planning and coordination, students can complete their four-year degree and begin their graduate degree, finishing both simultaneously.

Contact Information

Davis School of Business
Dominguez Hall 301
970.248.1580

Programs of Study Bachelors/Minors

- Accounting (Minor) (p. 107)
- Bachelor of Science in Accounting + Master of Business Administration (3+2) (p. 102)
- General Accounting, Accounting (BS) (p. 102)
- Public Accounting, Accounting (BS) (p. 105)

Certificates

- Accounting Practice (Professional Certificate) (p. 108)
- Fraud Examination (Professional Certificate) (p. 109)

Bachelor of Science in Accounting + Master of Business Administration (3+2)

The accounting program also offers an option of a five year (3+2) program which allows students to graduate with a Bachelor of Science in Accounting and a Master of Business Administration. This combination provides students with the opportunity to earn the hours required to be licensed as a Certified Public Accountant (CPA). Through careful planning and coordination, students can complete their four-year degree and begin their graduate degree, finishing both simultaneously. For more information, please see 3+2 Program. For more information about our accounting degrees and programs, please see Bachelor of Science in Public Accounting.

The Colorado Mesa University Master of Business Administration (MBA) degree is a challenging program designed to prepare graduates for the changing business world. The degree is awarded after successful completion of 36 semester hours of rigorous study. The program is designed to provide the student with a broad background in business. To this end, students acquire knowledge of management operations, an appreciation of the interrelationships involved in business, an understanding of the economic, political and social environment in which businesses function, and behavioral skills that are essential in the manager's role in the implementation of business decisions. The MBA program endeavors to provide an atmosphere conducive to the development of each student's ability to think in a creative manner and to effectively problem solve. The program makes extensive use of the latest learning management systems to disseminate course materials, lectures, simulations, group projects, case studies, and applied research. All of our courses are taught by qualified graduate faculty with exceptional experience in higher education and industry. More information about our MBA Program can be found at MBA Program Information.

General Accounting, Accounting (BS)

Degree: Bachelor of Science
Major: Accounting
Concentration: General Accounting
Program Code: 3104

Accounting is the one degree with 360 degrees of possibilities. Every business needs accounting expertise, whether it's a Wall Street law firm, a professional sports team, movie production company, or a rock band. With the proper accounting education, your employment options are endless. This program is designed for undergraduate students who do not wish to pursue CPA certification. The General Accounting concentration provides students with basic business skills as well as the accounting knowledge needed to work in an accounting department in private industry or government.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Utilize relevant and critically evaluated accounting information to apply accounting knowledge and skills in appropriate business contexts and transfer knowledge and skills to new situation. (Critical Thinking Information Literacy)
2. Communicate clearly, appropriately, and persuasively to the audience, both orally and in writing. (Effective Communication)
3. Effectively work in a team. (Applied Learning)
4. Recommend appropriate ethical actions. (Ethical Awareness)
5. Develop professional relationships with CMU stakeholders (CPAs and community members) by assisting area residents with annual income tax return filing requirements. (Personal Social Responsibility)
6. Apply quantitative analysis methods correctly to develop appropriate business conclusions. (Quantitative Fluency)
7. Demonstrate a mastery of the accounting body of knowledge appropriate for the bachelor's degree level. (Specialized Knowledge)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with

your advisor or academic department to determine which catalog year and program requirements you should follow.

- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 113	College Algebra-GTMA1 [2]	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [3]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

[1] Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

[2] This is a 4 credit course. 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.

[3] 7 semester hours, one course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(27 semester hours. These courses, plus Essential Learning English & Math requirements, must be completed within the student’s first 60 hours.)

Code	Title	Semester Credit Hours
ACCT 201	Principles of Financial Accounting	3
ACCT 202	Principles of Managerial Accounting	3
BUGB 211	Business Communications	3
CISB 205	Advanced Business Software	3
CISB 210	Fundamentals of Information Systems	3
ECON 201	Principles of Macroeconomics-GTSS1	3
ECON 202	Principles of Microeconomics-GTSS1	3
CISB 241	Introduction to Business Analysis	3
or STAT 241	Introduction to Business Analysis	
MANG 201	Principles of Management	3
Total Semester Credit Hours		**27**

Program Specific Degree Requirements

(52 semester hours, must pass each course with a grade of “C” or higher.)

Code	Title	Semester Credit Hours
Core Courses		
ACCT 321	Intermediate Accounting I	3
ACCT 322	Intermediate Accounting II	3
ACCT 331	Cost Accounting	3
ACCT 360	Professional Preparation I	1
ACCT 392	Accounting Information Systems	3
ACCT 401	Governmental & Nonprofit Accounting	3
BUGB 351	Business Law I	3
FINA 301	Managerial Finance	3
MANG 301	Organizational Behavior	3
MARK 231	Principles of Marketing	3
Concentration Courses		
Accounting		
Select 12 semester hours of the following:		12
ACCT 350	Ethics for Accounting Professionals	
ACCT 393	Cooperative Education	
ACCT 396	Topics [1]	
ACCT 402	Advanced Accounting	
ACCT 441	Individual Income Tax	
ACCT 442	Advanced Tax and Tax Research	
ACCT 470	Fraud and Forensic Accounting	
ACCT 471	Data Analytics for Accounting	
ACCT 493	Cooperative Education	

Business		
MANG 491	Business Strategy	3
Select 9 additional hours from upper division courses with the prefix of BUGB, CISB, ECON, ENTR, FINA, HMGT, HRMA, MANG, or MARK		9
Total Semester Credit Hours		**52**

[1] No more than 3 semester credit hours of ACCT 396 may count toward completion of the BS in Accounting: General Accounting.

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours. 4 semester hours

Code	Title	Semester Credit Hours
MATH 113	College Algebra-GTMA1	1
Select additional electives		3
Total Semester Credit Hours		**4**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
MATH 113	College Algebra-GTMA1	4
Essential Learning - Fine Arts		3
Essential Learning - Natural Science		3
Essential Learning - Social/Behavioral Science		3
	Semester Credit Hours	**16**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
Essential Learning - Humanities		3
Essential Learning - History		3
Essential Learning - Social/Behavioral Science		3
KINE 100	Health and Wellness	1
KINA Activity		1
	Semester Credit Hours	**14**
Second Year		
Fall Semester		
ACCT 201	Principles of Financial Accounting	3
CISB 205	Advanced Business Software	3
CISB 241 or STAT 241	Introduction to Business Analysis or Introduction to Business Analysis	3
ECON 201	Principles of Macroeconomics-GTSS1	3
MANG 201	Principles of Management	3
	Semester Credit Hours	**15**
Spring Semester		
ACCT 202	Principles of Managerial Accounting	3
BUGB 211	Business Communications	3
CISB 210	Fundamentals of Information Systems	3
ECON 202	Principles of Microeconomics-GTSS1	3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
	Semester Credit Hours	**16**
Third Year		
Fall Semester		
ACCT 321	Intermediate Accounting I	3
ACCT 331	Cost Accounting	3
BUGB 351	Business Law I	3
MARK 231	Principles of Marketing	3
MANG 301	Organizational Behavior	3
	Semester Credit Hours	**15**
Spring Semester		
ACCT 322	Intermediate Accounting II	3
ACCT 360	Professional Preparation I	1
ACCT 392	Accounting Information Systems	3
Accounting Concentration Course		3
Essential Learning - Natural Sciences with Lab		4
	Semester Credit Hours	**14**
Fourth Year		
Fall Semester		
ACCT 401	Governmental & Nonprofit Accounting	3
FINA 301	Managerial Finance	3
Accounting Concentration Course		3
Accounting Concentration Course		3
General Electives		3
	Semester Credit Hours	**15**
Spring Semester		
MANG 491	Business Strategy	3
Accounting Concentration Course		3
Business Concentration Course (3 courses)		9
	Semester Credit Hours	**15**
	Total Semester Credit Hours	**120**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.

- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Public Accounting, Accounting (BS)

Degree: Bachelor of Science
Major: Accounting
Concentration: Public Accounting
Program Code: 3108

Accounting is the one degree with 360 degrees of possibilities. Every business needs accounting expertise, whether it's a Wall Street law firm, a professional sports team, movie production company, or a rock band. With the proper accounting education your employment options are endless. The Public Accounting concentration provides students with basic business skills as well as the accounting knowledge needed to pass the Certified Public Accounting CPA exam. Graduates of this program have a very high CPA exam pass rate and are heavily recruited by local and regional CPA firms. Most graduates will have job offers months before they graduate.

This program is designed to be the undergraduate component of the 3+2 accounting program which can earn the graduate a Bachelor of Science in Accounting and a Master of Business Administration (MBA) in five years. In order to meet Colorado CPA licensing requirements (150 hours), students will need to complete the 3+2 program. The Public Accounting concentration is the required pathway for the 3+2 program and, in conjunction with the 3+2 program, will provide the curriculum needed for CPA licensure.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Utilize relevant and critically evaluated accounting information to apply accounting knowledge and skills in appropriate business contexts and transfer knowledge and skills to new situation. (Critical Thinking Information Literacy)
2. Communicate clearly, persuasively to the audience, both orally and in writing. (Effective Communication)
3. Effectively work in a team. (Applied Learning)
4. Recommend appropriate ethical actions. (Personal Social Responsibility Ethical Awareness)
5. Develop professional relationships with CMU stakeholders (CPAs and community members) by assisting area residents with annual income tax return filing requirements. (Personal Social Responsibility)
6. Apply quantitative analysis methods correctly to develop appropriate business conclusions. (Quantitative Fluency)
7. Demonstrate a mastery of the accounting body of knowledge appropriate for the bachelor's degree level. (Specialized Knowledge)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 113	College Algebra-GTMA1 [2]	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [3]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

[1] Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

[2] This is a 4 credit course. 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.

[3] 7 semester hours, one course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(27 semester hours. These courses, plus Essential Learning English & Math requirements, must be completed within the student's first 60 hours.)

Code	Title	Semester Credit Hours
ACCT 201	Principles of Financial Accounting	3
ACCT 202	Principles of Managerial Accounting	3
BUGB 211	Business Communications	3
CISB 205	Advanced Business Software	3
CISB 210	Fundamentals of Information Systems	3
CISB 241	Introduction to Business Analysis	3
or STAT 241	Introduction to Business Analysis	
ECON 201	Principles of Macroeconomics-GTSS1	3
ECON 202	Principles of Microeconomics-GTSS1	3
MANG 201	Principles of Management	3
Total Semester Credit Hours		**27**

Program Specific Degree Requirements

(55 semester hours, must pass each course with a grade of "C" or higher.)

Code	Title	Semester Credit Hours
Core Courses		
ACCT 321	Intermediate Accounting I	3
ACCT 322	Intermediate Accounting II	3
ACCT 331	Cost Accounting	3
ACCT 360	Professional Preparation I	1
ACCT 392	Accounting Information Systems	3
ACCT 401	Governmental & Nonprofit Accounting	3
BUGB 351	Business Law I	3
FINA 301	Managerial Finance	3
MANG 301	Organizational Behavior	3
MARK 231	Principles of Marketing	3
Concentration Courses		
ACCT 350	Ethics for Accounting Professionals	3
ACCT 402	Advanced Accounting	3
ACCT 411	Auditing I	3
ACCT 412	Auditing II	3
ACCT 441	Individual Income Tax	4
ACCT 442	Advanced Tax and Tax Research	5
ACCT 471	Data Analytics for Accounting	3
BUGB 352	Business Law II	3
Total Semester Credit Hours		**55**

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours. 1 semester hour.

Code	Title	Semester Credit Hours
MATH 113	College Algebra-GTMA1	1
Total Semester Credit Hours		**1**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
MATH 113	College Algebra-GTMA1	4
Essential Learning - Fine Arts		3
Essential Learning - Natural Science		3
Essential Learning - Social/Behavioral Science		3
	Semester Credit Hours	**16**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
Essential Learning - History		3
Essential Learning - Humanities		3
Essential Learning - Social/Behavioral Science		3
KINE 100	Health and Wellness	1
KINA Activity		1
	Semester Credit Hours	**14**
Second Year		
Fall Semester		
ACCT 201	Principles of Financial Accounting	3
CISB 205	Advanced Business Software	3
CISB 241 or STAT 241	Introduction to Business Analysis or Introduction to Business Analysis	3
ECON 201	Principles of Macroeconomics-GTSS1	3
MANG 201	Principles of Management	3
	Semester Credit Hours	**15**
Spring Semester		
ACCT 202	Principles of Managerial Accounting	3
BUGB 211	Business Communications	3
CISB 210	Fundamentals of Information Systems	3
ECON 202	Principles of Microeconomics-GTSS1	3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
	Semester Credit Hours	**16**
Third Year		
Fall Semester		
ACCT 321	Intermediate Accounting I	3
ACCT 331	Cost Accounting	3
BUGB 351	Business Law I	3
FINA 301	Managerial Finance	3
MARK 231	Principles of Marketing	3
	Semester Credit Hours	**15**
Spring Semester		
ACCT 322	Intermediate Accounting II	3
ACCT 350	Ethics for Accounting Professionals	3
ACCT 392	Accounting Information Systems	3
BUGB 352	Business Law II	3
Essential Learning - Natural Science with Lab		4
	Semester Credit Hours	**16**
Fourth Year		
Fall Semester		
ACCT 401	Governmental & Nonprofit Accounting	3
ACCT 411	Auditing I	3
ACCT 441	Individual Income Tax	4
ACCT 471	Data Analytics for Accounting	3
	Semester Credit Hours	**13**
Spring Semester		
ACCT 360	Professional Preparation I	1
ACCT 412	Auditing II	3
ACCT 402	Advanced Accounting	3
ACCT 442	Advanced Tax and Tax Research	5
MANG 301	Organizational Behavior	3
	Semester Credit Hours	**15**
	Total Semester Credit Hours	**120**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Accounting (Minor)

Minor: Accounting
Program Code: M135

Accounting is the one degree with 360 degrees of possibilities. Every business needs accounting help, whether it's a Wall Street law firm, a professional sports team, a movie production company, or a rock band. With the proper accounting education, your employment options are endless.

Accounting is the language of business and regardless of your major, the more accounting you have the better prepared you will be for a

management position. This is a rigorous minor that will stand out on a résumé.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(21 semester hours for the Minor in Accounting)

Code	Title	Semester Credit Hours
ACCT 201	Principles of Financial Accounting	3
ACCT 202	Principles of Managerial Accounting	3
ACCT 321	Intermediate Accounting I	3
ACCT 322	Intermediate Accounting II	3
ACCT 331	Cost Accounting	3
ACCT Elective at the 300 or 400 level		3
ACCT Elective at the 300 or 400 level		3
Total Semester Credit Hours		**21**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student’s responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar’s Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar’s Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the “Intent to Graduate” form.

If a student’s petition for graduation is denied, it will be their responsibility to consult the Registrar’s Office regarding next steps.

Accounting Practice (Professional Certificate)

Overview

Award: Professional Certificate
Program of Study: Accounting Practice
Program Code: 1706

The Accounting Practice Professional Certificate program at CMU is designed to enable accounting students who have completed the BS Public Accounting to begin employment while continuing to earn university credits needed to meet the 150-credit hour licensing requirement for Certified Public Accountants (CPAs) in the state of Colorado. This program allows the student to earn up to 12 credits toward the 150-credit hour requirement and complete a Professional Certificate in Accounting Practice.

All CMU certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, critical thinking, and personal and social responsibility. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Gain practical experience while creating accounting work products for employer (Specialized Knowledge/Applied Learning).
2. Develop and present professional products using oral and written arguments or explanations well-grounded in accounting principles (Communication Fluency).
3. Formulate and evaluate hypotheses as related to accounting practice, issues, concepts, and various perspectives (Critical Thinking).

4. Demonstrate adherence to the professional ethics requirements of the AICPA Code of Professional Conduct (Personal and Social Responsibility).

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU Professional Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Primarily 300-400 level courses.
- At least fifty percent of the credit hours must be taken at CMU.
- 2.00 cumulative GPA or higher in all CMU coursework.
- A grade lower than “C” in the program of study will not be counted toward meeting the certificate’s requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Specific to this degree:

- Minimum of 12 credits to earn the Professional Certificate of Accounting Practice.

Program Specific Certificate Requirements

Code	Title	Semester Credit Hours
ACCT 480	Accounting Externship	12
Total Semester Credit Hours		**12**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ACCT 480	Accounting Externship	12
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**12**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student’s responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar’s Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar’s Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the “Intent to Graduate” form to the Registrar’s Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's “Intent to Graduate” does not automatically move to a later graduation date.

Fraud Examination (Professional Certificate)

Overview

Award: Professional Certificate
Program of Study: Fraud Examination
Program Code: 1702

The Fraud Examination Certificate is designed to prepare students to conduct financial fraud examinations in a variety of organizations. The curriculum is aligned with the Association of Certified Fraud Examiners (ACFE) requirements to sit for the Certified Fraud Examiner (CFE) exam. The curriculum will focus on adding to existing accounting students' and professionals' knowledge of financial statement auditing and enable the certificate holder to achieve an additional professional certification beyond the Certified Public Accountant (CPA). Courses will include study of Fraud and Forensic Accounting, Data Analysis for Accounting, Forensic and Fraud Legalities, and Fraud Examination.

Throughout the program, students will be given opportunities to participate in hands-on learning activities. The program can be completed in one year and can be completed in on-campus, hybrid, and/or online courses.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, critical thinking, and personal and social responsibility. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Apply key principles of fraud examination and investigation. (Specialized Knowledge/Applied Learning)
2. Apply data analysis techniques to financial data to look for evidence of fraud (Quantitative Fluency, Specialized Knowledge/Applied Learning)
3. Evaluate the legalities and ethics related to investigation of financial frauds. (Communication Fluency, Personal and Social Responsibility, Specialized Knowledge/Applied Learning)
4. Develop skills to conduct a fraud examination and pass the Certified Fraud Examiner Exam. (Quantitative Fluency, Specialized Knowledge/Applied Learning)

Requirements

The following institutional requirements apply to all CMU Professional Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Primarily 300-400 level courses.
- At least fifty percent of the credit hours must be taken at CMU.
- 2.00 cumulative GPA or higher in all CMU coursework.
- A grade lower than "C" in the program of study will not be counted toward meeting the certificate's requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU Professional Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Primarily 300-400 level courses.
- At least fifty percent of the credit hours must be taken at CMU.
- 2.00 cumulative GPA or higher in all CMU coursework.
- A grade lower than "C" in the program of study will not be counted toward meeting the certificate's requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this degree:

- Twelve semester hours required for Professional Certificate Fraud Examination

Program Specific Certificate Requirements

(12 semester hours. Prerequisite course/s may be required, increasing the number of hours for the program. Please consult with a discipline specific faculty for more information.)

Code	Title	Semester Credit Hours
ACCT 470	Fraud and Forensic Accounting	3
ACCT 471	Data Analytics for Accounting	3
ACCT 473	Fraud Legalities	3
ACCT 475	Fraud Examination	3
Total Semester Credit Hours		**12**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ACCT 470	Fraud and Forensic Accounting	3
ACCT 471	Data Analytics for Accounting	3
	Semester Credit Hours	**6**
Spring Semester		
ACCT 473	Fraud Legalities	3

ACCT 475	Fraud Examination [1]	3
	Semester Credit Hours	**6**
	Total Semester Credit Hours	**12**

[1] Prerequisite course/s may be required, increasing the number of hours for the program. Please consult with a discipline specific faculty for more information.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Addiction Studies

Program Description

This program is no longer accepting new students.

This certificate program will provide students with the knowledge and skills that are in high demand in all aspects of the behavioral health field. Students receiving this certificate will be provided with the latest evidence-based practices, research studies and best practices in the field of addictions. This certificate is offered to meet educational requirements that are needed for the Certified Addiction Counselor (CAC) II training as outlined by the Colorado Department of Human Services (CDHS), Office of Behavioral Health (OBH). These courses seek to enhance the student's counseling abilities, knowledge and competencies in becoming an addictions professional. By completing the educational requirements of this certificate, students are eligible to take the National Association for Addictions Professionals (NAADAC) NCAC I or NCAC II exam for CAC II certification as required in Colorado. All required classes seek to enhance the student's ability to offer addiction treatment services in a manner that respects gender, race and ethnicity, sexual orientation, cultural, familial, systemic and socioeconomic diversity.

Contact Information

Department of Social and Behavioral Sciences
970.248.1696

Programs of Study

Certificates

- Addiction Studies (Professional Certificate) (p. 111)

Addiction Studies (Professional Certificate)

Award: Professional Certificate
Program of Study: Addiction Studies
Program Code: 1711

This program is no longer accepting new students.

The Addictions Studies certificate program is designed for students who desire a career within the addictions profession and health care industry. Addiction students who receive their certificate can either be self-employed or work with mental health organizations or practices throughout the state. Student who receive this certificate will have completed the educational requirements and learning objectives that are needed for becoming a Certified Addiction Counselor Level Two (CAC II) as outlined by the Colorado Department of Human Services (CDHS) and the Office of Behavioral Health (OBH). Students who complete the educational requirements and learning objectives of this certification program are eligible to take the Association for Addiction Professionals (NAADAC) National Certified Addiction Counselor (NCAC I) or (NCAC II) exam and apply to Department of Regulatory Agency (DORA) for CAC II certification as required in Colorado.

All CMU certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, critical thinking, and personal and social responsibility. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Complete practiced-based performance standards that draws on current research, scholarship and/or techniques, and acquire specialized knowledge in the discipline. (Specialized Knowledge/ Applied Learning)
2. Analyze data critically, reason logically, and apply quantitative analysis methods correctly to develop appropriate conclusions. (Quantitative Fluency:)
3. Make and defend assertions about a specialized topic in an extended well-organized document and oral presentations that is appropriate to the discipline. (Communication Fluency)
4. Describe reasoned conclusions that articulate the implications and consequences for a particular decision by synthesizing information and methodologies in the field of addictions. (Critical Thinking)
5. Complete practiced-based performance standards that draws on current research, scholarship and/or techniques, and acquire specialized knowledge in the discipline. (Specialized Knowledge/ Applied Learning)
6. Analyze data critically, reason logically, and apply quantitative analysis methods correctly to develop appropriate conclusions. (Quantitative Fluency)
7. Make and defend assertions about a specialized topic in an extended well-organized document and oral presentations that is appropriate to the discipline. (Communication Fluency)
8. Describe reasoned conclusions that articulate the implications and consequences for a particular decision by synthesizing information and methodologies in the field of addictions. (Critical Thinking)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU Professional Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Primarily 300-400 level courses.
- At least fifty percent of the credit hours must be taken at CMU.
- 2.00 cumulative GPA or higher in all CMU coursework.
- A grade lower than "C" in the program of study will not be counted toward meeting the certificate's requirements.
- A course may only be used to fulfill one requirement for each degree/ certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(18 semester hours)

Code	Title	Semester Credit Hours
Required Courses		
ADAP 301	Foundations of Addictions Counseling	1
ADAP 350	Cultural and Ethical Issues in Addictions Treatment	1
ADAP 380	Pharmacology and Addictions	1
ADAP 401	Special Populations and Addictions	1
ADAP 420	Addiction Counseling Approaches	1
ADAP 450	Addictions Assessment and Group Counseling	1
ADAP 460	Advanced Addictions Practice	1
ADAP 470	Addictions Clinical Supervision	1
ADAP 499	Internship (1-3 credit hours each enrollment for a total of 10 credit hours)	10
Total Semester Credit Hours		**18**

Suggested Course Plan

(18 Semester Hours)

First Year		
Fall Semester		**Semester Credit Hours**
ADAP 301	Foundations of Addictions Counseling (First Mod)	1
ADAP 350	Cultural and Ethical Issues in Addictions Treatment (Second Mod)	1
ADAP 499	Internship (Full Term)	2
	Semester Credit Hours	**4**
Spring Semester		
ADAP 380	Pharmacology and Addictions (J-Term)	1
ADAP 499	Internship (J-Term)	1
ADAP 401	Special Populations and Addictions (First Mod)	1
ADAP 499	Internship (First Mod)	2
ADAP 420	Addiction Counseling Approaches (Second Mod)	1
ADAP 450	Addictions Assessment and Group Counseling (Second Mod)	1
	Semester Credit Hours	**7**
Summer Semester		
ADAP 460	Advanced Addictions Practice (First Mod)	1
ADAP 499	Internship (First Mod)	3
ADAP 470	Addictions Clinical Supervision (Second Mod)	1
ADAP 499	Internship (Second Mod)	2
	Semester Credit Hours	**7**
	Total Semester Credit Hours	**18**

Advising and Graduation
Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Agriculture Science
Program Description

The Agriculture Science curriculum is designed to provide students the fundamentals of agriculture and related business practices. With this degree, students will be well positioned to transfer into a bachelor's degree program in agriculture. Graduates of this Associate of Science degree are qualified for employment in a variety of positions associated with sustainable agriculture, including horticultural and livestock operations, wholesale and retail management, nursery operations, and environmental and agricultural education.

Contact Information

CMU Tech
Office of Student Services, Kayenta Hall 102
2508 Blichmann Avenue
970.255.2670

Programs of Study
Associates

- Agriculture Science (AS) (p. 113)

Agriculture Science (AS)

Degree: Associate of Science
Major: Agricultural Science
Program Code: 2341

The Agriculture Science curriculum is designed to provide students the fundamentals of agriculture and related business practices. With this degree, students will be well positioned to transfer into a bachelor degree program in agriculture. Graduates are qualified for employment in a variety of positions associated with sustainable agriculture, including horticultural and livestock operations, wholesale and retail management, nursery operations, and environmental and agricultural education.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Apply business communication skills using listening, verbal and written, and electronic forms that are needed for entry level employment in agriculture. (communication fluency).
2. Apply mathematical concepts for agriculture industry. (quantitative fluency).
3. Research and apply relevant agricultural information and data to agricultural challenges. (specialized knowledge, critical thinking).
4. Demonstrate knowledge of agricultural terminology, symbols, practices, and principles and application of associated technical skills. (specialized knowledge).
5. Demonstrate ethical, civic, and work place responsibility as part of professional behavior in an agricultural environment. (personal and social responsibility).

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU or CMU Tech Associate of Science (AS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours total.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade of "C" or higher must be earned in all Essential Learning courses in order to be accepted for transfer under the Colorado Core Transfer Consortium General Education curriculum or gtPathways, Colorado's guaranteed transfer program.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 15 semester credit hours for an associate of science degree. A maximum of 6 of the 15 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 110	Mathematical Investigations-GTMA1	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [2]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

[1] Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

[2] One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Total Semester Credit Hours		**2**

Program Specific Degree Requirements

(24 semester hours, must earn a "C" or better in each course.)

Code	Title	Semester Credit Hours
Agriculture Courses		
AGRS 100 & 100L	Practical Crop Production and Practical Crop Production Laboratory	4
AGRS 102	Agriculture Economics	3
AGRS 105	Animal Science	3
AGRS 205	Farm and Ranch Management	3
AGRS 240	Introduction to Soil Science	3
AGRS 240L	Introduction to Soil Science Laboratory	1
Restricted Electives		
Select at least 7 semester hours from the following list [1]		7
Animal Science Courses		
AGRS 225	Feeds and Feeding	

AGRS 230	Farm Animal Anatomy and Physiology	
AGRS 250 & 250L	Live Animal and Carcass Evaluation and Live Animal and Carcass Evaluation Laboratory	
AGRS 288	Livestock Practicum	
AGRS 296	Topics:	
Soil and Crop Science Courses		
AGRS 110	Integrated Pest Management	
AGRS 118	Farm Structures and Green Houses	
AGRS 210	Agricultural Marketing	
AGRS 260	Plant Propagation	
AGRS 296	Topics:	
PHYS 100	Concepts of Physics-GTSC2	
Agriculture Business Courses		
ACCT 201	Principles of Financial Accounting	
AGRS 210	Agricultural Marketing	
CISB 101	Business Information Technology	
Agriculture Education Courses		
AGRS 208	Agricultural Finance	
AGRS 225	Feeds and Feeding	
Total Semester Credit Hours		**24**

[1] See advisor for recommended tracks.

General Electives

(3 semester hours)

Code	Title	Semester Credit Hours
Select electives		3
Total Semester Credit Hours		**3**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
AGRS 100 & 100L	Practical Crop Production and Practical Crop Production Laboratory	4
ENGL 111	English Composition I-GTCO1	3
KINE 100	Health and Wellness	1
Restricted Elective		3
Essential Learning - Natural Science with lab		4
	Semester Credit Hours	**15**
Spring Semester		
AGRS 105	Animal Science	3
ENGL 112	English Composition II-GTCO2	3
MATH 110	Mathematical Investigations-GTMA1	3
Essential Learning - Natural Science		3
General Elective		3
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
AGRS 102	Agriculture Economics	3
AGRS 240 & 240L	Introduction to Soil Science and Introduction to Soil Science Laboratory	4
Restricted Elective		3
Essential Learning - Humanities		3
Essential Learning - History		3
	Semester Credit Hours	**16**
Spring Semester		
AGRS 205	Farm and Ranch Management	3
Restricted Elective		1
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - Fine Arts		3
KINA Activity		1
	Semester Credit Hours	**14**
	Total Semester Credit Hours	**60**

Students that intend to continue with Colorado Mesa University should take ESSL 290 - Maverick Milestone and ESSL 200 - Essential Speech during the final semester of their Associate of Science work.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Airframe and Powerplant Mechanic

Overview

Program Description

This program has been approved by CMU and has been submitted to the accreditor. This program is pending HLC review.

The Airframe and Powerplant Mechanic program will certify students to safely and legally perform installations and repairs on aircraft under current FAA regulations. Students will earn their General Mechanic, Airframe Mechanic, and Powerplant Mechanic certifications through the FAA. The program will prepare students to enter the workforce in a high demand, well paying industry.

Important information about this program:

- Additional Program Cost - $1500-$2500 for tools which students will retain for use during employment upon completion of the program.
- Minimum of 40 semester hours must be taken at CMU in no fewer than three semesters.
- Cumulative grade point average of 2.5 or higher must be maintained for all courses taken.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

Contact Information

CMU Tech
Office of Student Services, Kayenta Hall 102
2508 Blichmann Avenue
970.255.2670

Programs of Study

Associates

- Airframe and Powerplant Mechanic (AAS) (p. 116)

Airframe and Powerplant Mechanic (AAS)

Overview

Degree: Associate of Applied Science
Major: Airframe and Powerplant Mechanic
Program Code: 1401

This program has been approved by CMU and has been submitted to the accreditor. This program is pending HLC review and approval.

The Airframe and Powerplant Mechanic program will certify students to safely and legally perform installations and repairs on aircraft under current FAA regulations. Students will earn their General Mechanic, Airframe Mechanic, and Powerplant Mechanic certifications through the FAA. The program will prepare students to enter the workforce in a high demand, well paying industry.

Important information about this program:

- Additional Program Cost - $1500-$2500 for tools which students will retain for use during employment upon completion of the program.
- Cumulative grade point average of 2.5 or higher must be maintained for all courses taken.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Acquire knowledge and skills for General and Airframe Mechanic certification contained in the FAA Part 147 curriculum. (Specialized Knowledge, Information Literacy)
2. Examine and implement FAA standards for aviation safety, and aeronautical decision making, including evaluating personal limitations. (Specialized Knowledge, Critical Thinking, Communication Fluency)
3. Acquire knowledge and skill for Powerplant Mechanic certification contained in the FAA Part 147 curriculum. (Specialized Knowledge, Information Literacy)
4. Demonstrate quantitative literacy skills and the ability to think critically in a demanding environment. (Quantitative Literacy, Critical Thinking)

Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with

your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this degree:

- 64 semester hours required for the Airframe and Powerplant Mechanic AAS.
- Cumulative grade point average of 2.5 or higher must be maintained for all courses taken.

Essential Learning Requirements

(16 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English		
ENGL 111	English Composition I-GTCO1	3
Select one of the following courses:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communication	
SPCH 102	Speechmaking	
Mathematics		
MATH 108	Technical Mathematics	4
Other Essential Learning Core Courses		
PSYC 150	General Psychology-GTSS3	3
Select one of the following:		3
CHEM 111	Introduction to Concepts of General Chemistry	
ENVS 101	Introduction to Environmental Science-GTSC2	
GEOL 103	Weather and Climate-GTSC2	
PHYS 101	Elementary Astronomy-GTSC2	
Total Semester Credit Hours		**16**

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirements		
KINE 100	Health and Wellness	1
Select one Activity course		1
Total Semester Credit Hours		**2**

Program Specific Degree Requirements

(46 semester hours, must be completed with a grade of "C" or better. A cumulative grade point average of 2.5 or higher must be maintained for all courses taken.)

Code	Title	Semester Credit Hours
APMT 101	Introduction to Airframe and Powerplant Mechanic	4
APMT 102	Regulations and Computations	4
APMT 103	Aircraft Materials I	4
APMT 104	Aircraft Systems for Airframe & Powerplant I	4
APMT 111	Electrical Systems in Aircraft	4
APMT 113	Aircraft Materials II	4
APMT 114	Aircraft Systems for Airframe & Powerplant II	4
APMT 118	Systems Troubleshooting	1
APMT 205	Reciprocating Engines I	4
APMT 206	Reciprocating Engines II	4
APMT 215	Turbine Engines I	4
APMT 216	Turbine Engines II	4
APMT 218	Engine Troubleshooting	1
Total Semester Credit Hours		**46**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
APMT 101	Introduction to Airframe and Powerplant Mechanic	4
APMT 102	Regulations and Computations	4
APMT 103	Aircraft Materials I	4
APMT 104	Aircraft Systems for Airframe & Powerplant I	4
	Semester Credit Hours	**16**
Spring Semester		
ENGL 111	English Composition I-GTCO1	3

APMT 111	Electrical Systems in Aircraft	4
APMT 113	Aircraft Materials II	4
APMT 114	Aircraft Systems for Airframe & Powerplant II	4
APMT 118	Systems Troubleshooting	1
	Semester Credit Hours	**16**
Second Year		
Fall Semester		
APMT 205	Reciprocating Engines I	4
APMT 206	Reciprocating Engines II	4
APMT 215	Turbine Engines I	4
APMT 216	Turbine Engines II	4
APMT 218	Engine Troubleshooting	1
	Semester Credit Hours	**17**
Spring Semester		
MATH 108	Technical Mathematics (or higher)	4
PSYC 150	General Psychology-GTSS3	3
KINE 100	Health and Wellness	1
KINA Activity Course		1
Choose one of the following:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communication	
SPCH 102	Speechmaking	
Choose three credits of any Physical Sciences course		3
	Semester Credit Hours	**15**
	Total Semester Credit Hours	**64**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Animation, Film, Photography, and Motion Design

Program Description

The Bachelor of Fine Arts degree in Animation, Film, Photography, & Motion Design focuses on the study of time, motion and light in regards to various entertainment fields, including Film, Animation, TV, Photography, Web, Games, Visual Effects, Music Videos, and Advertising. Coursework concentrates on creating traditional and digital 2D, 3D, and stop motion animation; digital filmmaking, post-production, visual effects, and sound design; and traditional, alternative, and digital Photography. These fields are explored through narrative, non-fiction, and experimental storytelling techniques to allow students a range of expression for their artistic vision. Graduates are prepared to become animators, filmmakers, photographers, storyboard artists, character designers, concept artists, motion designers, screenwriters, producers, editors, and cinematographers.

Contact Information

Department of Art and Design
Fine Arts Building 200
970.248.1833

Programs of Study Bachelors/Minors

- Animation (Minor) (p. 122)
- Animation, Film, Photography and Motion Design (BFA) (p. 119)

Certificates

- Digital Photography (Professional Certificate) (p. 122)
- Film Photography (Professional Certificate) (p. 124)

Animation, Film, Photography and Motion Design (BFA)

Degree: Bachelor of Fine Arts
Major: Animation, Film, Photography, and Motion Design
Program Code: 3284

The BFA in Animation, Film, Photography and Motion Design teaches all aspects of the production process. Classes are structured around experiential learning, providing students with extensive hands-on practice with individual and collaborative projects that reflect industry standards.

Animation, Film, Photography and Motion Design encourages students to explore their passions and interests by allowing certain projects to be customized to their individual career goals. This degree cultivates a positive learning environment for experimentation and exploration with an emphasis on the study of time, motion and light in regards to various narrative, non-fiction, and experimental techniques. Students develop into critical, analytical, and independent problem solvers, thinkers, and creators.

The program offers cross-disciplinary coursework, which emphasizes the relationships between Animation, Film, Photography, and Motion Design so that each course enhances the others.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Interpret and apply formal elements and principles of design. (Specialized Knowledge)
2. Demonstrate application of tools, materials, techniques, and proper use and care for equipment through quality craftsmanship. (Applied Learning)
3. Generate individual response through concept and theory beyond formal elements to create personal content. (Communication Fluency)
4. Communicate clearly regarding the critical analysis of art and design both historical and contemporary. (Critical thinking/ Communication Fluency)
5. Reflect on and respond to ethical, social, civil, and/or environment challenges as they relate to art, design, and new media. (Personal and Social Responsibility)
6. Determine the best medium, methods and artistic strategies for evaluating information critically and developing a message by finding relevant sources of information, and applying the information effectively to visual culture. (Information Literacy)
7. Design and publish a professional portfolio and demo reel that meet current industry standards. (Applied Learning)
8. Demonstrate technical, aesthetic, and conceptual decisions based on application of the creative design process for photographic and time-based media. (Specialized Knowledge)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.

- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 110	Mathematical Investigations-GTMA1	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [2]		
Select one Natural Sciences course with a lab		4
Select one Natural Sciences course		3
Total Semester Credit Hours		**31**

[1] Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

[2] One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 200	Essential Speech	1
ESSL 290	Maverick Milestone	3
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(15 semester hours, must pass each course with a grade of "B" or higher.)

Code	Title	Semester Credit Hours
ARTE 101	Two-Dimensional Design-GTAH1	3
ARTE 102	Three-Dimensional Design-GTAH1	3
ARTE 118	History of Art, Prehistory to Renaissance-GTAH1	3
ARTE 119	History of Art, Renaissance to Present-GTAH1	3
ARTS 151	Foundation Drawing I	3
Total Semester Credit Hours		**15**

Program Specific Degree Requirements

(48 semester hours, must pass each course with a grade of "C" or higher.)

Code	Title	Semester Credit Hours
Art History Course		
ARTH 331	History of the Moving Image	3
Animation, Film, Photography & Motion Design Courses		
ARTA 123	Lights! Camera! Action!	3
ARTA 222	Principles of Digital Photography	3
or ARTS 225	Introduction to Photography	
ARTA 223	Image and Motion	3
ARTA 224	Principles of Film	3
ARTA 225	Principles of Animation	3
ARTA 323	Character Design and Story Concepts	3
or ARTA 426	Advanced Motion Studio	
ARTA 324	Animation Production	3
or ARTA 326	Intermediate Filmmaking	
ARTA 327	Sound Design and Post-Production	3
ARTA 422	Advanced Photography and Studio Lighting	3
or ARTS 425	Advanced Studio Photography	
ARTA 424	Animation, Film, and Photography Studio I	3
ARTA 425	Animation, Film, and Photography Studio II	3
ARTA 427	Portfolio and Demo Reel	3

Restricted Electives	
9 credits of upper-division ARTA, ARTG, ARTS, ARTT, or ARTH	9
Total Semester Credit Hours	**48**

General Electives

(All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours, including 40 hours of Upper Division. 20 semester hours, 7 of which must be Upper Division.)

Code	Title	Semester Credit Hours
Select electives		20
Total Semester Credit Hours		**20**

Suggested Course Plan

First Year		
Fall Semester		
ENGL 111	English Composition I-GTCO1	3
ARTE 118	History of Art, Prehistory to Renaissance-GTAH1	3
ARTE 101 or ARTE 102	Two-Dimensional Design-GTAH1 [1] or Three-Dimensional Design-GTAH1	3
ARTA 123	Lights! Camera! Action!	3
Essential Learning - Social and Behavioral Sciences		3
	Semester Credit Hours	**15**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
MATH 110	Mathematical Investigations-GTMA1	3
ARTE 101 or ARTE 102	Two-Dimensional Design-GTAH1 [1] or Three-Dimensional Design-GTAH1	3
ARTE 119	History of Art, Renaissance to Present-GTAH1	3
Essential Learning- History		3
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
ARTS 151	Foundation Drawing I	3
ARTA 222 or ARTA 223	Principles of Digital Photography [1] or Image and Motion	3
KINE 100	Health and Wellness	1
KINA Activity		1
Essential Learning - Humanities		3
Essential Learning - Natural Science with lab		4
	Semester Credit Hours	**15**
Spring Semester		
ARTA 222 or ARTA 223	Principles of Digital Photography [1] or Image and Motion	3
ARTA 224	Principles of Film	3
ARTA 225	Principles of Animation	3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Essential Learning - Natural Science		3
	Semester Credit Hours	**16**
Third Year		
Fall Semester		
ARTA 324 or ARTA 326	Animation Production or Intermediate Filmmaking	3
ARTH 331	History of the Moving Image	3
Essential Learning - Fine Arts		3
Restricted Elective		6
	Semester Credit Hours	**15**
Spring Semester		
ARTA 323 or ARTA 426	Character Design and Story Concepts or Advanced Motion Studio	3
ARTA 327	Sound Design and Post-Production	3
Essential Learning - Social and Behavioral Sciences		3
General Elective (2 courses)		6
	Semester Credit Hours	**15**
Fourth Year		
Fall Semester		
ARTA 424	Animation, Film, and Photography Studio I	3
General Electives (3 courses)		9
Restricted Elective		3
	Semester Credit Hours	**15**
Spring Semester		
ARTA 422 or ARTS 425	Advanced Photography and Studio Lighting or Advanced Studio Photography	3
ARTA 425	Animation, Film, and Photography Studio II	3
ARTA 427	Portfolio and Demo Reel	3
General Electives		5
	Semester Credit Hours	**14**
	Total Semester Credit Hours	**120**

[1] Both courses must be completed. Students may choose which semester to take each course. ARTS 225 may be taken instead of ARTA 222.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.

- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Animation (Minor)

Overview

Minor: Animation
Program Code: M204

The Animation Minor will acquaint students with core elements related to the study and profession of animation production. This minor is a cross-discipline collaboration and includes one course with the Theatre Arts Department. The minor has been designed to provide an additional skill set that may be useful for obtaining employment, and enhancing professional opportunities, in the areas of arts, design, entertainment, film, animation, TV, video editing, graphic design, game design, computer science, marketing and/or advertising.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Requirements

(18 Semester Hours)

Code	Title	Semester Credit Hours
ARTA 224	Principles of Film	3
or ARTA 222	Principles of Digital Photography	
ARTA 225	Principles of Animation	3
ARTA 323	Character Design and Story Concepts [1]	3
ARTA 324	Animation Production [1]	3
ARTH 331	History of the Moving Image [1]	3
THEA 150	Fundamentals of Acting	3
Total Semester Credit Hours		**18**

[1] This course has a prerequisite that must be taken prior to this course, which could increase the total credits for the minor.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the "Intent to Graduate" form.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Digital Photography (Professional Certificate)

Overview

Award: Professional Certificate
Program of Study: Digital Photography

Program Code: 1707

The Digital Photography Professional Certificate teaches photography, editing, and printing. Classes are structured around experiential learning, providing students with extensive hands-on practice with individual and collaborative projects that reflect industry standards.

The Digital Photography Professional Certificate cultivates a positive learning environment for experimentation and exploration with an emphasis on the study of photography, light, color, and composition in regards to various narrative, non-fiction, and experimental techniques. Students develop into critical, analytical, and independent problem solvers, thinkers, and creators.

The Digital Photography Professional Certificate program equips students with the technical skills, creative vision, and professional expertise needed to excel in the field of photography. The curriculum involves hands-on learning of foundational and advanced techniques in digital photography, lighting, composition, and post-processing. Students will explore various genres, including portrait, landscape, commercial, and documentary photography. Students will emerge with a compelling portfolio and the confidence to navigate the professional photography landscape.

All CMU certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, critical thinking, and personal and social responsibility. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Construct a summative project, paper or practiced-based performance that draws on current research, scholarship and/or techniques, and specialized knowledge in the discipline of digital photography (Specialized Knowledge/Applied Learning)
2. Describe reasoned conclusions that articulate the implications and consequences for a particular digital photography decision by synthesizing information and methodologies (Critical Thinking)
3. Reflect on and respond to ethical, social, civic and/or environmental challenges at local, national, and/or global levels in the digital photography industry. (Personal and Social Responsibility)

Requirements

The following institutional requirements apply to all CMU Professional Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Primarily 300-400 level courses.
- At least fifty percent of the credit hours must be taken at CMU.
- 2.00 cumulative GPA or higher in all CMU coursework.
- A grade lower than "C" in the program of study will not be counted toward meeting the certificate's requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU Professional Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Primarily 300-400 level courses.
- At least fifty percent of the credit hours must be taken at CMU.
- 2.00 cumulative GPA or higher in all CMU coursework.
- A grade lower than "C" in the program of study will not be counted toward meeting the certificate's requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(12 semester hours)

Code	Title	Semester Credit Hours
ARTA 222	Principles of Digital Photography	3
or ARTS 225	Introduction to Photography	
ARTS 335	Digital Alternative Processes [1]	3
ARTS 336	Photography Workshop I	3
ARTA 422	Advanced Photography and Studio Lighting	3
or ARTS 425	Advanced Studio Photography	
Total Semester Credit Hours		**12**

[1] This course has a prerequisite of ARTS 325.

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ARTA 222	Principles of Digital Photography	3
or ARTS 225	or Introduction to Photography	
	Semester Credit Hours	**3**

Spring Semester		
ARTA 422 or ARTS 425	Advanced Photography and Studio Lighting or Advanced Studio Photography	3
	Semester Credit Hours	**3**
Second Year		
Fall Semester		
ARTS 335	Digital Alternative Processes	3
	Semester Credit Hours	**3**
Spring Semester		
ARTS 336	Photography Workshop I	3
	Semester Credit Hours	**3**
	Total Semester Credit Hours	**12**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Film Photography (Professional Certificate)

Overview

Award: Professional Certificate
Program of Study: Film Photography
Program Code: 1708

The Film Photography Professional Certificate program equips students with the technical skills, creative vision, and professional expertise needed to excel in the field of photography. The curriculum involves hands-on learning of foundational, advanced, and alternative techniques in film photography, lighting, composition, and post-processing. Students will explore various genres, including portrait, landscape, commercial, and documentary photography. Students will emerge with a compelling portfolio and the confidence to navigate the professional photography landscape.

All CMU certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, critical thinking, and personal and social responsibility. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Construct a summative project, paper or practiced-based performance that draws on current research, scholarship and/or techniques, and specialized knowledge in the discipline of analog film photography (Specialized Knowledge/Applied Learning)
2. Describe reasoned conclusions that articulate the implications and consequences for a particular decision by synthesizing information and methodologies in analog film photography. (Critical Thinking)
3. Reflect on and respond to ethical, social, civic and/or environmental challenges at local, national, and/or global levels in the analog film photography industry. (Personal and Social Responsibility)

Requirements

The following institutional requirements apply to all CMU Professional Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Primarily 300-400 level courses.
- At least fifty percent of the credit hours must be taken at CMU.
- 2.00 cumulative GPA or higher in all CMU coursework.
- A grade lower than "C" in the program of study will not be counted toward meeting the certificate's requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU Professional Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Primarily 300-400 level courses.
- At least fifty percent of the credit hours must be taken at CMU.
- 2.00 cumulative GPA or higher in all CMU coursework.
- A grade lower than "C" in the program of study will not be counted toward meeting the certificate's requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(9 semester hours, must pass each course with a grade of "C" or higher.)

Code	Title	Semester Credit Hours
Animation, Film, Photography & Motion Design Courses		
ARTA 222	Principles of Digital Photography	3
or ARTS 225	Introduction to Photography	
ARTS 325	Intermediate Photography	3
ARTS 435	Wet Alternative Processes [1]	3
Total Semester Credit Hours		**9**

[1] This course has a prerequisite of ARTS 335.

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ARTA 222 or ARTS 225	Principles of Digital Photography or Introduction to Photography	3
	Semester Credit Hours	**3**
Spring Semester		
ARTA 322	Intermediate Photography	3
	Semester Credit Hours	**3**
Second Year		
Fall Semester		
ARTS 435	Wet Alternative Processes	3
	Semester Credit Hours	**3**
	Total Semester Credit Hours	**9**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Applied Anthropology and Geography

The Applied Anthropology and Geography major combines rigorous academic preparation in anthropology and geography with hands-on skills in GIS (Geographic Information Systems), archaeology, and forensic anthropology. Upon graduation, all students will have knowledge of cartography and GIS as well as physical anthropology and archaeology. The ability to use GIS is an applied skill that will give the students in the anthropological sub-disciplines a niche to set them apart from other anthropology undergraduates.

Contact Information

Department of Social and Behavioral Sciences
Houston Hall
970.248.1696

Programs of Study Bachelors/Minors

- Applied Anthropology and Geography (BA) (p. 126)

Applied Anthropology and Geography (BA)

Degree: Bachelor of Arts
Major: Applied Anthropology and Geography
Program Code: 3780

The digital humanities and social sciences, an interdisciplinary field that combines technology skills with social science knowledge, is a growing, innovative collaboration of disciplines making its impact nation-wide. Upon graduation, all students will have knowledge of cartography and GIS, as well as physical anthropology and archaeology. GIS is an applied skill that will give the students in the anthropological sub disciplines a niche to set them apart from other anthropology undergraduates. The anthropological disciplines provide students, who focus on GIS, a subject matter with which to hone their GIS skills.

BA-seeking students in this program will learn to think critically and ask theoretically-grounded questions about human lives in the immediate area, the surrounding region, and ultimately, across the western USA, in a program that seamlessly blends the acquisition of academic and professional skills. Furthermore, practical training in archaeological, geographical and forensic anthropological field research allows students to take full advantage of the applied employment opportunities available across the western slope and Colorado Plateau as part of energy extraction, law enforcement and/or civil engineering (for example).

Important Information for this degree:

- Students must maintain a 2.0 cumulative GPA or higher in all CMU coursework.
- Students must earn a minimum of a "C" or higher in all courses for the major.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Demonstrate effective communication both orally and in writing by being precise, including factual, well-cited details, organizing facts appropriately, and using non-judgmental language through professional documentation and/or oral presentations. (Communication Fluency)
2. Demonstrate tools to be life-long learners to include evaluation of information from other students' research, material found on the internet, and scholarly journal articles. (Critical Thinking, Information Literacy)
3. Demonstrate the ability to create maps in a geographical information system program and do basic spatial analysis. (Specialized Knowledge)
4. Reflect on and respond to changes in anthropology and geography at various scales – i.e., ethical, social, civic, and/or environmental challenges at local, national, and/or global levels (personal and social responsibility)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.

- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Specific to this degree:

- Students must earn a minimum of a "C" or higher in all courses for the major.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 110	Mathematical Investigations-GTMA1 (or higher)	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences		
Select one Natural Sciences course with a lab		4
Select one Natural Sciences course		3
Total Semester Credit Hours		**31**

[1] Must receive a grade of “C” or better and must be completed by the time the student has 60 semester hours.

Other Lower Division Requirements

(7 semester hours)

Code	Title	Semester Credit Hours
Wellness Requirements		
KINE 100	Health and Wellness	1
OREC 104	Orienteering	1
OREC 105	Backpacking	1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**7**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements and when a student has earned between 45 and 75 hours.

Foundation Courses

(10 semester hours)

Code	Title	Semester Credit Hours
Two consecutive courses in the same foreign language		6
STAT 215	Statistics for Social and Behavioral Sciences	4
Total Semester Credit Hours		**10**

Program Specific Degree Requirements

(46 semester hours. Students must earn a minimum of a "C" or higher in all courses for the major.)

Code	Title	Semester Credit Hours
Major Core Courses		
ANTH 202	Introduction to Anthropology-GTSS3	3
ANTH 220	Principles of Archaeology-GTSS3	3
ANTH 240	Cultural Anthropology	3
ANTH 231 & 231L	Survey of Biological Anthropology-GTSS3 and Survey of Biological Anthropology Laboratory-GTSS3	4
GEOG 102	Human Geography-GTSS2	3
GEOG 131	Introduction to Cartography	3
GEOG 341 & 341L	GIS for Social Scientists and GIS for Social Scientists Lab	3
GIST 332 & 332L	Introduction to Geographic Information Systems and Introduction to Geographic Information Systems Laboratory	3
Applied Anthropology and Geography Electives		
Select 15 semester hours from the following:		15
ANTH 321	Paleoindian Archaeology	
ANTH 326	Colorado Archaeology: A Geographical Perspective	
ANTH 331 & 331L	Forensic Anthropology and Forensic Anthropology Laboratory	
ANTH 341	Indigenous Cultures of North America	
ANTH 396	Topics	
ANTH 420 & 420L	Field Methods in Archaeology and Field Methods in Archaeology Laboratory	
ANTH 421	Cultural Resource Management	
ANTH 422	Southwest Archaeology	
ANTH 423	Field Research in Archaeology	
ANTH 424	Archaeological Laboratory Methods	

ANTH 478	Professional Issues in Forensic Science	
ANTH 499	Internship	
ARKE 499	Internship	
POLS/GEOG 354	Political Geography	
GEOG 399	Internship	
Restricted Electives		
Select 6 semester hours from the following (at least three hours must be upper-division):		6
ANTH 222	World Prehistory-GTSS3	
ANTH 225	North American Archaeology	
ANTH 270 & 270L	Death and Forensic Science and Death and Forensic Science Laboratory	
ANTH 296	Topics	
BIOL 209 & 209L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Laboratory	
BIOL 210 & 210L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Laboratory	
BIOL 241	Pathophysiology	
BIOL 410 & 410L	Human Osteology and Human Osteology Laboratory	
CRMJ 280 & 280L	Crime Scene Processing and Crime Scene Processing Laboratory	
GEOG 103	World Regional Geography-GTSS2	
GIST 321 & 321L	Introduction to Remote Sensing and Introduction to Remote Sensing Laboratory	
GIST 375 & 375L	Global Positioning Systems for GIS and Global Positioning Systems for GIS Laboratory	
HIST 315	Indigenous American History	
HIST 409	Material Culture Studies	
HIST 435	Classical Archaeology	
POLS 356	Indigenous Politics	
Total Semester Credit Hours		**46**

General Electives

(All college level courses appearing on your final transcript not listed above that will bring your total semester hours to 120 hours, including 40 upper division hours. 26 semester hours, including 13-16 semester hours of upper division may be needed.)

Code	Title	Semester Credit Hours
Select electives		26
Total Semester Credit Hours		**26**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ANTH 202	Introduction to Anthropology-GTSS3	3
ENGL 111	English Composition I-GTCO1	3
GEOG 102	Human Geography-GTSS2	3
KINE 100	Health and Wellness	1
Essential Learning - Natural Sciences w/Lab		4
	Semester Credit Hours	**14**
Spring Semester		
ANTH 220	Principles of Archaeology-GTSS3	3
ENGL 112	English Composition II-GTCO2	3
MATH 110	Mathematical Investigations-GTMA1	3
Essential Learning - Fine Arts		3
Essential Learning - History		3
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
ANTH 231 & 231L	Survey of Biological Anthropology-GTSS3 and Survey of Biological Anthropology Laboratory-GTSS3	4
GEOG 131	Introduction to Cartography	3
Essential Learning - Social and Behavioral Sciences		3
Foreign Language		3
Applied Anthropology and Geography Elective		3
	Semester Credit Hours	**16**
Spring Semester		
ANTH 240	Cultural Anthropology	3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
GIST 332 & 332L	Introduction to Geographic Information Systems and Introduction to Geographic Information Systems Laboratory	3
Essential Learning - Humanities		3
Foreign Language		3
	Semester Credit Hours	**16**
Third Year		
Fall Semester		
STAT 215	Statistics for Social and Behavioral Sciences	4
GEOG 341 & 341L	GIS for Social Scientists and GIS for Social Scientists Lab	3
Applied Anthropology and Geography Elective		3
Essential Learning - Natural Sciences		3
Essential Learning - Social and Behavioral Sciences		3
	Semester Credit Hours	**16**
Spring Semester		
OREC 104	Orienteering	1
OREC 105	Backpacking	1
Applied Anthropology and Geography Elective		3
Restricted Elective		3
General Electives		5
	Semester Credit Hours	**13**
Fourth Year		
Fall Semester		
Applied Anthropology and Geography Elective		3
General Electives		9
Restricted Elective		3
	Semester Credit Hours	**15**
Spring Semester		
Applied Anthropology and Geography Electives		3
General Electives		12
	Semester Credit Hours	**15**
	Total Semester Credit Hours	**120**

Advising and Graduation Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course

sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Applied Business

Program Description

This program prepares students for an exciting career in the field of business. An associate's degree gives students an opportunity to lead a team, start a business, and develop skills to improve an existing business.

The Applied Business program at CMU Tech features:

- Technical, interpersonal and soft skill courses that prepare students to enter the workforce.
- Course content that is relevant to today's business needs. Training is focused on current business trends and demands, diverse learning styles, hands-on classroom experience and practical program-related work.
- Small class sizes ensure students receive the level of instruction needed to excel in today's business world.
- Traditional classroom instruction and classes offered at night or online.
- Flexible curriculum that includes several one-semester Technical Certificates.
- An agreement with Colorado Mesa University's Davis School of Business enabling students who complete a two-year degree to seamlessly move to CMU to earn a Bachelor of Applied Science in Business Administration.

Contact Information

CMU Tech
Office of Student Services, Kayenta Hall 102
2508 Blichmann Avenue
970.255.2670

Programs of Study

Associates

- Administrative Support, Applied Business (AAS) (p. 129)
- Frontline Supervision, Applied Business (AAS) (p. 131)
- Marketing Communications, Applied Business (AAS) (p. 133)

Certificates

- Administrative Support, Applied Business (Technical Certificate) (p. 135)
- Business Foundations, Applied Business (Technical Certificate) (p. 137)
- Graphics Technology, Applied Business (Technical Certificate) (p. 138)
- Management Foundations, Applied Business (Technical Certificate) (p. 139)
- Marketing Graphics Technology, Applied Business (Technical Certificate) (p. 140)
- Office Technology, Applied Business (Technical Certificate) (p. 142)

Administrative Support, Applied Business (AAS)

Degree: Associate of Applied Science

Major: Applied Business
Emphasis: Administrative Support
Program Code: 1300

This program prepares students to be effective, efficient professionals. Students develop skills in budget analysis, office technology, grammar, oral presentations, information systems, current software programs, human relations and communications. The administrative support curriculum prepares the student to be an effective and efficient staff member in business, government or non-profit organizations and/or their own microbusiness.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Use business software applications effectively to perform job-related tasks (Information Literacy and Specialized Knowledge).
2. Demonstrate self-awareness, ethical, and professional behavior (Personal Responsibility).
3. Identify communication skills that enhance a positive customer service experience and business environment (Communication Fluency and Specialized Knowledge).
4. Research and recommend solutions to basic business challenges (Information Literacy and Critical Thinking).
5. Use standard business protocols to improve office productivity and efficiency (Quantitative Fluency).

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this degree:

- 62 semester hours total for the AAS in Applied Business, Administrative Support emphasis.

Essential Learning Requirements

(18 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
Communication		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
SPCH 101	Interpersonal Communication	3
Mathematics		
MATH 107	Career Math (or higher)	3
Other Essential Learning Core Courses		
Select one Social and Behavioral Sciences, Natural Sciences, Fine Arts or Humanities course		3
Select one Social and Behavioral Sciences, Natural Sciences, Fine Arts or Humanities course		3
Total Semester Credit Hours		**18**

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
KINA 1XX	Activity Course	1
Total Semester Credit Hours		**2**

Foundation Courses

(21 semester hours)

Code	Title	Semester Credit Hours
ABUS 102	Business Basics	3
ABUS 128	Workplace Behavior	3
ABUS 156	Problem Solving in the Business Environment	3
ABUS 210	MicroBusiness Money Management	3
ABUS 257	Managing Office Technology I	3
BUGB 211	Business Communications	3
MANG 201	Principles of Management	3
Total Semester Credit Hours		**21**

Program Specific Degree Requirements

(21 semester hours, must complete with a grade of "C" or better.)

Code	Title	Semester Credit Hours
Core Courses		
ABUS 105	Internet Marketing Strategies	3
ABUS 116	Principles of Supervision	3
ABUS 155	Social Media for Business	3
ABUS 160	Introduction to Customer Service	3
ABUS 200	Business Rules and Regulations	3
ABUS 258	Managing Office Technology II	3
ABUS 299	Internship	3
Total Semester Credit Hours		**21**

Suggested Course Plan

First Year		
Fall Semester		
ABUS 102	Business Basics	3
ABUS 128	Workplace Behavior	3
ABUS 155	Social Media for Business	3
ABUS 257	Managing Office Technology I	3
ENGL 111	English Composition I-GTCO1	3
KINE 100	Health and Wellness	1
	Semester Credit Hours	**16**
Spring Semester		
ABUS 116	Principles of Supervision	3
ABUS 258	Managing Office Technology II	3
ENGL 112	English Composition II-GTCO2	3
MATH 107	Career Math	3
SPCH 101	Interpersonal Communication	3
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
ABUS 160	Introduction to Customer Service	3
ABUS 200	Business Rules and Regulations	3
BUGB 211	Business Communications	3
MANG 201	Principles of Management	3
Essential Learning - Social and Behavioral Sciences, Natural Sciences, Fine Arts or Humanities course		3
KINA 1XX	Activity Course	1
	Semester Credit Hours	**16**
Spring Semester		
ABUS 105	Internet Marketing Strategies	3
ABUS 156	Problem Solving in the Business Environment	3
ABUS 210	MicroBusiness Money Management	3
ABUS 299	Internship	3
Essential Learning - Social and Behavioral Sciences, Natural Sciences, Fine Arts or Humanities course		3
	Semester Credit Hours	**15**
	Total Semester Credit Hours	**62**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Frontline Supervision, Applied Business (AAS)

Degree: Associate of Applied Science
Major: Applied Business
Emphasis: Frontline Supervision
Program Code: 1301

This program is no longer accepting new students.

This program prepares students to be effective, efficient, entry-level professionals. Students develop skills in supervision, the basics of human resources, and how to work with others in a business environment. The Frontline Supervision curriculum prepares the student to be an effective staff member in business, government or non-profit organizations. Students learn the importance of human behavior in organizations, how to supervise employees, and basic human resource practices.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Develop skills necessary to communicate properly with subordinates, supervisors and peers using both verbal and non-verbal techniques (Communication Fluency).
2. Discuss the supervisor's function, place in the management team and role in the business environment (Specialized Knowledge).
3. Demonstrate appropriate business professional skills needed in the workplace (Personal and Social Responsibility).
4. Identify and describe human resource management (Applied Learning).

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Specific to this degree:

- 62 semester hours total for the AAS in Applied Business, Frontline Supervision emphasis.

Essential Learning Requirements

(18 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
Communication		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
SPCH 101	Interpersonal Communication	3
Mathematics		
MATH 107	Career Math (or higher)	3
Other Essential Learning Core Courses		
Select one Social and Behavioral Sciences, Natural Sciences, Fine Arts or Humanities course		3
Select one Social and Behavioral Sciences, Natural Sciences, Fine Arts or Humanities course		3
Total Semester Credit Hours		**18**

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
KINA 1XX	Activity Course	1
Total Semester Credit Hours		**2**

Foundation Courses

(21 semester hours)

Code	Title	Semester Credit Hours
ABUS 102	Business Basics	3
ABUS 128	Workplace Behavior	3
ABUS 156	Problem Solving in the Business Environment	3
ABUS 210	MicroBusiness Money Management	3
ABUS 257	Managing Office Technology I	3
BUGB 211	Business Communications	3
MANG 201	Principles of Management	3
Total Semester Credit Hours		**21**

Program Specific Degree Requirements

(21 semester hours, must complete each course with a grade of "C" or better.)

Code	Title	Semester Credit Hours
Required Courses		
ABUS 105	Internet Marketing Strategies	3
ABUS 116	Principles of Supervision	3
ABUS 160	Introduction to Customer Service	3
ABUS 200	Business Rules and Regulations	3
ABUS 258	Managing Office Technology II	3
ABUS 299	Internship	3
ABUS Elective		3
Total Semester Credit Hours		**21**

Suggested Course Plan

First Year		
Fall Semester		
ABUS 102	Business Basics	3
ABUS 128	Workplace Behavior	3
ABUS 160	Introduction to Customer Service	3
ABUS 257	Managing Office Technology I	3
KINE 100	Health and Wellness	1
SPCH 101	Interpersonal Communication	3
	Semester Credit Hours	**16**
Spring Semester		
ABUS 116	Principles of Supervision	3
ENGL 111	English Composition I-GTCO1	3
ABUS 258	Managing Office Technology II	3
MANG 201	Principles of Management	3
MATH 107	Career Math	3
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
ABUS Elective		3
ABUS 105	Internet Marketing Strategies	3
BUGB 211	Business Communications	3
ENGL 112	English Composition II-GTCO2	3
Essential Learning - Social and Behavioral Sciences, Natural Sciences, Fine Arts or Humanities course		3
KINA 1XX	Activity Course	1
	Semester Credit Hours	**16**
Spring Semester		
ABUS 156	Problem Solving in the Business Environment	3
ABUS 200	Business Rules and Regulations	3
ABUS 210	MicroBusiness Money Management	3
ABUS 299	Internship	3
Essential Learning - Social and Behavioral Sciences, Natural Sciences, Fine Arts or Humanities course		3
	Semester Credit Hours	**15**
	Total Semester Credit Hours	**62**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Marketing Communications, Applied Business (AAS)

Degree: Associate of Applied Science
Major: Applied Business
Emphasis: Marketing Communication
Program Code: 1302

This program prepares students to be effective, efficient, entry-level marketing professionals and microbusiness owners. Students develop skills in customer service, digital design tools, human behavior in organizations, and social media. The Marketing Communications curriculum prepares the student to be an effective staff member in business, government or non-profit organizations and/or microbusiness owner. Students learn how to work with others, how to help others, how to use social media to the businesses advantage, and how to use entry level digital tools.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Interpret quantitative results from social media marketing efforts (Quantitative Fluency).
2. Develop and present a basic business plan (Specialized Knowledge and Communication Fluency).
3. Utilize industry-relevant software and tools to manipulate basic marketing materials (Specialized Knowledge and Information Literacy).
4. Recognize and explain basic financial terms and reports (Critical Thinking, Information Literacy, and Quantitative Fluency).
5. Utilize existing software templates to develop a web presence (Information Literacy and Specialized Knowledge).
6. Demonstrate professional and ethical business behavior (Critical Thinking and Personal and Social Responsibility).

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Specific to this degree:

- 62 semester hours total for the AAS in Applied Business, Marketing Communication emphasis.

Essential Learning Requirements

(18 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
Communication		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
SPCH 101	Interpersonal Communication	3
Mathematics		
MATH 107	Career Math (or higher)	3
Other Essential Learning Core Courses		
Select one Social and Behavioral Sciences, Natural Sciences, Fine Arts or Humanities course		3
Select one Social and Behavioral Sciences, Natural Sciences, Fine Arts or Humanities course		3
Total Semester Credit Hours		**18**

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
KINA 1XX	Activity Course	1
Total Semester Credit Hours		**2**

Foundation Courses

(21 semester hours)

Code	Title	Semester Credit Hours
ABUS 102	Business Basics	3
ABUS 128	Workplace Behavior	3
ABUS 156	Problem Solving in the Business Environment	3
ABUS 210	MicroBusiness Money Management	3
ABUS 257	Managing Office Technology I	3
BUGB 211	Business Communications	3
MANG 201	Principles of Management	3
Total Semester Credit Hours		**21**

Program Specific Degree Requirements

(21 semester hours, must earn a grade of "C" or higher in all courses.)

Code	Title	Semester Credit Hours
Core Courses		
ABUS 105	Internet Marketing Strategies	3
ABUS 114	Digital Layout	3
ABUS 120	Digital Design Tools	3
ABUS 155	Social Media for Business	3
ABUS 160	Introduction to Customer Service	3
ABUS 299	Internship	3
MARK 231	Principles of Marketing	3
Total Semester Credit Hours		**21**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ABUS 102	Business Basics	3
ABUS 120	Digital Design Tools	3
ABUS 257	Managing Office Technology I	3
KINE 100	Health and Wellness	1
ENGL 111	English Composition I-GTCO1	3
MATH 107	Career Math	3
	Semester Credit Hours	**16**
Spring Semester		
ABUS 105	Internet Marketing Strategies	3
ABUS 114	Digital Layout	3
ABUS 128	Workplace Behavior	3
ABUS 160	Introduction to Customer Service	3
ENGL 112	English Composition II-GTCO2	3
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
ABUS 156	Problem Solving in the Business Environment	3
BUGB 211	Business Communications	3
MANG 201	Principles of Management	3
SPCH 101	Interpersonal Communication	3
Essential Learning - Social and Behavioral Sciences, Natural Sciences, Fine Arts or Humanities course		3
KINA 1XX	Activity Course	1
	Semester Credit Hours	**16**
Spring Semester		
ABUS 155	Social Media for Business	3
ABUS 210	MicroBusiness Money Management	3
ABUS 299	Internship	3
MARK 231	Principles of Marketing	3
Essential Learning - Social and Behavioral Sciences, Natural Sciences, Fine Arts or Humanities course		3
	Semester Credit Hours	**15**
	Total Semester Credit Hours	**62**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Administrative Support, Applied Business (Technical Certificate)

Award: Technical Certificate

Program of Study: Applied Business
Specialization: Administrative Support
Program Code: 1100

This program prepares students to be effective, efficient, entry-level office professionals. Students develop skills in computer office programs, basics of human resources, and human relations in organizations. The Administrative Support curriculum prepares the student to be an effective staff member in business, government or non-profit organizations.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Define and identify appropriate workplace behaviors (Applied Learning).
2. Apply software applications to business office situations (Communication Fluency).
3. Create documentation and training materials for office technology (Communication Fluency).

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(9 semester hours, must earn a grade of "C" or better in each course.)

Code	Title	Semester Credit Hours
Required Courses		
ABUS 128	Workplace Behavior	3
ABUS 155	Social Media for Business	3
ABUS 257	Managing Office Technology I	3
Total Semester Credit Hours		**9**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ABUS 128	Workplace Behavior	3
ABUS 155	Social Media for Business	3
ABUS 257	Managing Office Technology I	3
	Semester Credit Hours	**9**
	Total Semester Credit Hours	**9**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the “Intent to Graduate” form to the Registrar’s Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's “Intent to Graduate” does not automatically move to a later graduation date.

Business Foundations, Applied Business (Technical Certificate)

Award: Technical Certificate
Program of Study: Applied Business
Specialization: Business Foundations
Program Code: 1104

This program prepares students to be effective, efficient, entry-level professionals. Students develop skills in business basics, marketing basics, and customer service. The Business Foundations curriculum prepares the student to be an effective staff member in business, government or non-profit organizations and/or start their own microbusiness.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Explain the importance of customer service. (Critical Thinking)
2. Demonstrate effective communication skills. (Applied Learning)
3. Compare and contrast different functions of business (Specialized Knowledge).

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than “C” will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(9 semester hours, must earn a grade of “C” or better in each course.)

Code	Title	Semester Credit Hours
Required Courses		
ABUS 102	Business Basics	3
ABUS 160	Introduction to Customer Service	3
ABUS 105	Internet Marketing Strategies	3
Total Semester Credit Hours		**9**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ABUS 102	Business Basics	3
ABUS 160	Introduction to Customer Service	3
ABUS 105	Internet Marketing Strategies	3
	Semester Credit Hours	**9**
	Total Semester Credit Hours	**9**

Advising and Graduation
Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Graphics Technology, Applied Business (Technical Certificate)

Award: Technical Certificate
Program of Study: Applied Business
Specialization: Graphics Technology
Program Code: 1103

This program prepares students to be effective, efficient, entry-level professionals. Students develop skills in web page design, digital layouts, and digital tools. The Graphics Technology curriculum prepares the student to be an effective staff member in business, government or non-profit organizations.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Utilize design principles used in the arrangement of graphic and text elements. (Specialized Knowledge)
2. Manage marketing activities through the use of the internet. (Applied Learning)
3. Create marketing material using Adobe Photoshop and Illustrator. (Applied Learning)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(9 semester hours, must earn a grade of "C" or better in each course.)

Code	Title	Semester Credit Hours
Required Courses		
ABUS 105	Internet Marketing Strategies	3
ABUS 120	Digital Design Tools	3
ABUS 155	Social Media for Business	3
Total Semester Credit Hours		**9**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ABUS 105	Internet Marketing Strategies	3
ABUS 120	Digital Design Tools	3
ABUS 155	Social Media for Business	3
	Semester Credit Hours	**9**
	Total Semester Credit Hours	**9**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Management Foundations, Applied Business (Technical Certificate)

Award: Technical Certificate
Program of Study: Applied Business
Specialization: Management Foundations
Program Code: 1121

This program prepares students to be effective, efficient, entry-level professionals. Students develop skills in supervision, the basics of human resources, and how to work with others in a business environment. The Management Foundations curriculum prepares the student to be an effective staff member in business, government or non-profit organizations. Students learn the importance of human behavior in organizations, how to supervise employees, and basic human resource practices.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Discuss the manager's function and role in the management team. (Critical Thinking)
2. Compare and contrast skills needed for appropriate workplace behavior in the business environment. (Specialized Knowledge)
3. Make and defend claims in a well-organized, professional document and/or oral presentation appropriate for a specific audience. (Communication Fluency)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(18 semester hours, must earn a grade of "C" or better in each course.)

Code	Title	Semester Credit Hours
Required Courses		
ABUS 102	Business Basics	3
ABUS 105	Internet Marketing Strategies	3
ABUS 128	Workplace Behavior	3
ABUS 160	Introduction to Customer Service	3
ABUS 200	Business Rules and Regulations	3
MANG 201	Principles of Management	3
Total Semester Credit Hours		**18**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ABUS 102	Business Basics	3
ABUS 105	Internet Marketing Strategies	3
ABUS 160	Introduction to Customer Service	3
	Semester Credit Hours	**9**
Spring Semester		
ABUS 128	Workplace Behavior	3
ABUS 200	Business Rules and Regulations	3
MANG 201	Principles of Management	3
	Semester Credit Hours	**9**
	Total Semester Credit Hours	**18**

Advising and Graduation
Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Marketing Graphics Technology, Applied Business (Technical Certificate)

Award: Technical Certificate
Program of Study: Applied Business
Specialization: Marketing Graphics Technology
Program Code: 1102

This program prepares students to be effective, efficient, entry-level marketing professionals. Students develop skills in customer service, human behavior in organizations, and social media. The Marketing Graphics Technology curriculum prepares the student to be an effective staff member in business, government or non-profit organizations. Students learn how to work with others, how to help others, and how to use social media to the businesses advantage.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Compare and contrast the different types of customer service (Specialized Knowledge).
2. Create marketing material using Adobe Photoshop, Illustrator, and InDesign. (Applied Learning).

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(18 semester hours, must earn a grade of "C" or better in each course.)

Code	Title	Semester Credit Hours
Required Courses		
ABUS 105	Internet Marketing Strategies	3
ABUS 114	Digital Layout	3
ABUS 120	Digital Design Tools	3
ABUS 128	Workplace Behavior	3
ABUS 155	Social Media for Business	3
ABUS 160	Introduction to Customer Service	3
Total Semester Credit Hours		**18**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ABUS 120	Digital Design Tools	3
ABUS 155	Social Media for Business	3
ABUS 105	Internet Marketing Strategies	3
	Semester Credit Hours	**9**
Spring Semester		
ABUS 114	Digital Layout	3
ABUS 160	Introduction to Customer Service	3
ABUS 128	Workplace Behavior	3
	Semester Credit Hours	**9**
	Total Semester Credit Hours	**18**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the “Intent to Graduate” form to the Registrar’s Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's “Intent to Graduate” does not automatically move to a later graduation date.

Office Technology, Applied Business (Technical Certificate)

Award: Technical Certificate
Program of Study: Applied Business
Specialization: Office Technology
Program Code: 1105

This program prepares students to be effective, efficient, entry-level office professionals. Students develop skills in electronic office procedures, word processing, spreadsheets, current software programs, and social media. The Office Technology curriculum prepares the student to be effective support staff in business, government or non-profit organizations.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Compare and contrast social media channels and how used in business (Critical thinking).
2. Preparing and formatting a spreadsheet (Applied Learning).
3. Identify and describe human resource functions (Specialized Knowledge).

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than “C” will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(18 semester hours, must earn a grade of “C” or better in each course.)

Code	Title	Semester Credit Hours
Required Courses		
ABUS 128	Workplace Behavior	3
ABUS 155	Social Media for Business	3
ABUS 156	Problem Solving in the Business Environment	3
ABUS 200	Business Rules and Regulations	3
ABUS 257	Managing Office Technology I	3
ABUS 258	Managing Office Technology II	3
Total Semester Credit Hours		**18**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ABUS 155	Social Media for Business	3
ABUS 200	Business Rules and Regulations	3
ABUS 257	Managing Office Technology I	3
	Semester Credit Hours	**9**
Spring Semester		
ABUS 128	Workplace Behavior	3

ABUS 156	Problem Solving in the Business Environment	3
ABUS 258	Managing Office Technology II	3
	Semester Credit Hours	**9**
	Total Semester Credit Hours	**18**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Applied Technology

Overview

Program Description

This degree is designed for a student who has completed a technical certificate from an Area Technical College and would like to scaffold that degree into an Associate of Applied Science Degree **OR** for the student who has earned a Technical Certificate/s from CMU Tech and has not earned an associate degree or higher utilizing the Technical Certificate credits. For those students earning a technical certificate from an area technical college, the technical certificate must be from a regionally accredited institution with which CMU/CMU Tech has an articulation agreement for the area of study. The student may transfer up to 43 Technical Certificate hours into the AAS in Applied Technology degree. The completed Technical Certificate, any additional technical coursework (from a single area of study) from CMU Tech needed to bring the total technical hours to 43 hours and the completion of 17 hours of Essential Learning (general education) coursework from CMU and any other degree requirements will allow the student to earn the Associate of Applied Science in Applied Technology.

For those students who have earned Technical Certificates from CMU Tech, the student may apply up to 43 Technical Certificate hours towards the AAS in Applied Technology degree. Students may use courses taken from multiple certificates earned at CMU Tech to apply to the 43 credit hours needed. To earn the AAS in Applied Technology, the completed Technical Certificate/s and any additional technical coursework from CMU Tech needed to bring the total technical hours to 43 hours and the completion of 17 hours of Essential Learning (general education) coursework from CMU and any other degree requirements will allow the student to earn this Associate of Applied Science in Applied Technology.

The Associate of Applied Science in Applied Technology degree is designed to provide students with an individualized, quality education in a technology area leading to a technical specialty and core knowledge through Essential Learning (general education) courses. Applied Technology is an area that encourages students to develop the necessary conceptual understanding, disciplinary skills, and subject knowledge to investigate and solve real-life problems. The Career and Technical Certificate in addition to the Essential Learning (general education) hours will prepare students for employment with needed technical and academic skills.

Important information about this program

- The Technical Certificate/s must be in an area of study where a complementary AAS is not currently offered through CMU Tech and the student has not earned an associate degree or higher utilizing the Technical Certificate credits.
- Transfer is limited to a Technical Certificate from a regionally accredited institution or an institution with which CMU Tech has an articulation agreement for the area of study.
- Eligibility of credit transfer will be determined through transcript evaluation by the Registrar's Office.
- All transfer credit hours must be a "C" or better to be eligible for transfer.
- Certificate graduates can transfer up to 43 certificate credit hours into the AAS in Applied Technology.
- 17 credits of Essential Learning (general education) and lower division courses taken from CMU are required.

- A minimum of 15 of the final 30 credit hours must be taken from CMU/CMU Tech.
- Students must complete all other degree requirements.
- Up to 43 credits from a completed CTE Certificate may be applied to the AAS in Applied Technology. Students completing a CTE Certificate of less than 43 credit hours must complete additional credit hours from a single CMU Tech technical certificate as approved by an advisor/department head to reach the 43 credit hours requirement.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

Contact Information

CMU Tech
Office of Student Services, Kayenta Hall 102
2508 Blichmann Avenue
970.255.2670

Programs of Study
Associates

- Applied Technology (AAS) (p. 144)

Applied Technology (AAS)

Overview

Degree: Associate of Applied Science
Program Code: 1335

This degree is designed for a student who has completed a technical certificate from an Area Technical College and would like to scaffold that degree into an Associate of Applied Science Degree OR for a student who has earned a Technical Certificate/s from CMU Tech and has not earned an associate degree or higher utilizing the Technical Certificate credits.

For those students earning a technical certificate from an Area Technical College, the technical certificate must be from a regionally accredited institution or an institution with which CMU Tech/CMU has an articulation agreement for the area of study. The student may transfer up to 43 Technical Certificate hours into the AAS in Applied Technology degree. The completed Technical Certificate, any additional technical coursework (from a single area of study) from CMU Tech needed to bring the total technical hours to 43 hours and the completion of 17 hours of Essential Learning (general education) coursework from CMU and any other degree requirements will allow the student to earn the Associate of Applied Science in Applied Technology.

For those students who have earned Technical Certificates from CMU Tech, the student may apply up to 43 Technical Certificate hours towards the AAS in Applied Technology degree. Students may use courses taken from multiple certificates earned at CMU Tech to apply to the 43 credit hours needed. To earn the AAS in Applied Technology, the completed Technical Certificate/s and any additional technical coursework from CMU Tech needed to bring the total technical hours to 43 hours and the completion of 17 hours of Essential Learning (general education) coursework from CMU and any other degree requirements will allow the student to earn this Associate of Applied Science in Applied Technology.

Transfer is limited to a Technical Certificate from a regionally accredited institution or an institution with which CMU Tech has an articulation agreement for the area of study. The Technical certificate must be in an area of study where a complementary AAS is not currently offered through CMU Tech.

The Associate of Applied Science in Applied Technology degree is designed to provide students with an individualized, quality education in a technology area leading to a technical specialty and a core knowledge through Essential Learning (general education) courses. Applied Technology is an area which encourages students to develop the necessary conceptual understanding, disciplinary skills and subject knowledge to investigate and solve real-life problems. The Career and Technical Certificate in addition to the Essential Learning (general education) hours will prepare students for employment with needed technical and academic skills.

Important information about this program:

- The Technical Certificate/s must be in an area of study where a complementary AAS is not currently offered through CMU Tech and the student has not earned an associate degree or higher utilizing the Technical Certificate credits.
- Transfer is limited to a Technical Certificate from a regionally accredited institution or an institution with which CMU Tech has an articulation agreement for the area of study.
- Eligibility of credit transfer will be determined through transcript evaluation by the Registrar's Office.
- All transfer credit hours must be a "C" or better to be eligible for transfer.
- Certificate graduates can transfer up to 43 certificate credit hours into the AAS in Applied Technology.
- 17 credits of Essential Learning (general education) and lower division courses taken from CMU are required.
- A minimum of 15 of the final 30 credit hours must be taken from CMU/CMU Tech.
- Students must complete all other degree requirements.
- Up to 43 credits from a completed CTE Certificate may be applied to the AAS in Applied Technology. Students completing a CTE Certificate of less than 43 credit hours must complete additional credit hours from a single CMU Tech technical certificate as approved by an advisor/department head to reach the 43 hour requirement.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Locate, gather and organize evidence on an assigned topic addressing a course or discipline-related question or a question of practice in a work or community setting. (Specialized Knowledge/ Applied Learning)
2. Use program-level mathematical concepts and methods to understand, analyze, and explain issues in quantitative terms. (Quantitative Fluency)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Specific to this degree:

- 60 total semester hours are required for the AAS in Applied Technology.
- The Technical certificate must be in an area of study where a complementary AAS is not currently offered through CMU Tech and the student has not earned an associate degree or higher utilizing the Technical Certificate credits.
- Transfer is limited to a Technical Certificate from a regionally accredited institution or an institution with which CMU Tech has an articulation agreement for the area of study.
- Eligibility of credit transfer will be determined through transcript evaluation by the Registrar's Office.
- All transfer credit hours must be a “C” or better to be eligible for transfer.
- Certificate graduates can transfer up to 43 Certificate credit hours into the AAS in Applied Technology.
- 17 credits of Essential Learning (general education) and lower division courses taken from CMU are required.
- A minimum of 15 of the final 30 credit hours must be taken from CMU/CMU Tech.
- Students must complete all other degree requirements.

Essential Learning Requirements

(15 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English		
ENGL 111	English Composition I-GTCO1	3
Select one of the following courses:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communication	
SPCH 102	Speechmaking	
Mathematics		
MATH 107	Career Math (or higher)	3
Other Essential Learning Core Courses		
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts, or Humanities course		3
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts, or Humanities course		3
Total Semester Credit Hours		**15**

Other Lower Division Requirements

Other Degree Requirements

Code	Title	Semester Credit Hours
Wellness Requirements		
KINE 100	Health and Wellness	1
Select one Activity course		1
Total Semester Credit Hours		**2**

Program Specific Requirements

Important information about this program:

- The Technical Certificate must be in an area of study where a complementary AAS is not currently offered through CMU Tech and the student has not earned an associate degree or higher utilizing the Technical Certificate credits.
- Transfer is limited to a Technical Certificate from a regionally accredited institution or an institution with which CMU Tech has an articulation agreement for the area of study.
- Eligibility of credit transfer will be determined through transcript evaluation by the Registrar's Office.
- All transfer credit hours must be a “C” or better to be eligible for transfer.
- Certificate graduates can transfer up to 43 Certificate credit hours into the AAS in Applied Technology.

- 17 credits of Essential Learning (general education) and lower division courses taken from CMU are required.
- A minimum of 15 of the final 30 credit hours must be taken from CMU/CMU Tech.
- Students must complete all other degree requirements.

Code	Title	Semester Credit Hours
Complete one of the following tracks:		43
	Area Technical College Transfer Track: 43 credits from a completed CTE Certificate or CMU Tech technical certificate. Students completing a CTE Certificate of less than 43 credit hours must complete additional credit hours from a single CMU Tech technical certificate as approved by an advisor/department head.	
	CMU Tech Track: Students may use courses taken from multiple certificates earned at CMU Tech to apply to the 43 credit hours needed as approved by the advisor/director of instruction. Students may only use Technical Certificate credits that have not been utilized for another associate degree or higher.	
Total Semester Credit Hours		**43**

Suggested Course Plan

To be determined by the academic advisor.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Archaeology

Program Description

The Archaeology minor provides students with an introduction to archaeological research, with a focus on the (pre)history of North America, and introduces students to the knowledge and skills necessary to carry out archaeological investigations and to treat what is recovered through such investigations appropriately. The required courses cover anthropology and the science of archaeology, while the elective choices give students the opportunity to select courses on specific topics or time periods of interest. Courses taken as part of the minor will provide students with background knowledge of North American prehistory and in-depth studies of regional sequences within that prehistory. The Archaeology Minor especially complements such degree BA programs as Applied Anthropology and Geography, History, and Environmental Science and Geology. Students with the background in Archaeology and Cultural Resource Management that the Minor supplies will be well prepared to enter the burgeoning local market in these areas.

Contact Information

Department of Social and Behavioral Sciences
Houston Hall
970.248.1696

Programs of Study Bachelor/Minors

- Archaeology (Minor) (p. 147)

Archaeology (Minor)

Minor: Archaeology
Program Code: M725

The Archaeology minor introduces students to the knowledge and skills necessary to carry out archaeological investigations and to treat what is recovered through such investigations appropriately. Courses taken as part of the minor will provide students with background knowledge of North American prehistory and in-depth studies of regional sequences within that prehistory. The Minor especially complements such degree programs as History and Geology. Students with the background in Archaeology and Cultural Resource Management that the Minor supplies will be well prepared to enter the burgeoning local market in these areas.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(20 semester hours)

Code	Title	Semester Credit Hours
Required Courses [1]		
ANTH 202	Introduction to Anthropology-GTSS3	3
ANTH 220	Principles of Archaeology-GTSS3	3
ANTH 222	World Prehistory-GTSS3	3
or ANTH 225	North American Archaeology	
ANTH 420 & 420L	Field Methods in Archaeology and Field Methods in Archaeology Laboratory	5
Choose 6 semester hours from the list below.		6
ANTH 321	Paleoindian Archaeology	
ANTH 326	Colorado Archaeology: A Geographical Perspective	
ANTH 421	Cultural Resource Management	
ANTH 422	Southwest Archaeology	
ANTH 423	Field Research in Archaeology	
ANTH 424	Archaeological Laboratory Methods	
GIST 332 & 332L	Introduction to Geographic Information Systems and Introduction to Geographic Information Systems Laboratory	
HIST 435	Classical Archaeology	
Total Semester Credit Hours		**20**

[1] Some courses require prerequisites not required for completion of this minor. Please review all prerequisites and work with your advisor to select courses.

[2] It is advised that students take the course in fulfillment of the Essential Learning Laboratory Science requirement.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the "Intent to Graduate" form.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Art

Program Description

The Bachelor of Fine Arts (BFA) degree in Studio Art is designed for students who are interested in pursuing a career as a professional artist or entering graduate school for further studies. It combines a strong foundation in design, drawing, and art history with a broad technical base in the disciplines of ceramics, sculpture, painting, printmaking, and photography. With this base in place and as their interests develop, each student artist can then tailor their degree path by focusing on one or more of these disciplines. The coursework develops critical and creative thinking, visual and conceptual problem solving, keen aesthetic judgment, effective communication, and a broad cultural awareness. The Bachelor of Fine Arts degree emphasizes studio art professional practices and culminates in professional portfolio development and a required senior thesis exhibition in the university gallery.

The Bachelor of Arts (BA) degree in Studio Art is designed for students interested in studio art who would like to combine their artistic and creative skills with majors or minors in other disciplines. There is less of an upper division intensive portfolio development focus, when compared to the Studio Art BFA, so that students can tailor their degree to choose from a variety of career paths. For example, owning and operating a gallery or art related business (combine the BA in Studio Art with a business major/minor) or art therapy (combine the BA in Studio Art with a psychology minor/major). This degree helps students develop the essential skills of critical thinking, creative problem solving, effective communication, aesthetic judgment, and cultural awareness. Students will become proficient with the materials, tools, and techniques of drawing, painting, printmaking, ceramics, sculpture, and photography. Art History studies engage students in historic and contemporary artists, art movements, and styles. Students can customize their course selections to meet their individual needs. This degree does not require a senior gallery exhibition.

The Bachelor of Arts (BA) degree in Art History combines strong curriculum requirements in art history and a sampling of studio art, design, and time-based media courses. Students in this major engage in an in-depth study of historic and contemporary artists, art movements, and styles. This degree can lead to professional employment in art museums and galleries, art publishing houses, and other areas of art services. The degree also prepares students for advanced, graduate-level art history studies.

The Bachelor of Fine Arts (BFA) degree in Art, concentrating in K-12 education, leads to licensure for Colorado K-12 Art Education. The visual art emphasis includes coursework in theory, art history, and studio art. Art teaching methods courses in elementary and secondary art are an integral part of the degree plan. Students accumulate over 200 hours of classroom experience before beginning student-teaching. School districts throughout western Colorado provide opportunities to gain experience with children of all ages and backgrounds in a variety of school settings. Please see the Teacher Education Admission Packet for further information on admissions criteria for entering the Teaching Program at CMU.

The Studio Art Minor acquaints students with some of the core elements in either two- or three-dimensional studio art. Students develop skills, sensitivity and aesthetic judgment while pursuing individual interests within studio areas such as drawing, painting, printmaking, ceramics, sculpture, or photography. A background in the visual arts can

provide a variety of opportunities in the areas of studio art, art gallery organizations, art therapy, and applied design.

Contact Information

Department of Art and Design
Fine Arts Building 200
970.248.1833

Programs of Study Bachelors/Minors

- Art History (BA) (p. 155)
- Art History (Minor) (p. 158)
- Education: K-12 Education, Art (BFA) (p. 149)
- Film Studies and Digital Production (Minor) (p. 163)
- Studio Art (BA) (p. 159)
- Studio Art (Minor) (p. 162)
- Studio Art, Art (BFA) (p. 152)

Education: K-12 Education, Art (BFA)

Degree: Bachelor of Fine Arts
Major: Art
Concentration: K-12 Teaching
Program Code: 3270

The Bachelor of Fine Arts degree leads to licensure for Colorado K-12 Art Education. The visual art emphasis includes coursework in theory, art history, and studio art. Art teaching methods courses in Elementary and Secondary Art are an integral part of the degree plan. As a student, you will gradually accumulate over 200 hours of classroom experience before beginning student teaching. School districts throughout western Colorado provide opportunities to gain experience with children of all ages and backgrounds in a variety of school settings.

A minimum of 75 credit hours of Essential Learning and content area coursework must be completed with a minimum GPA of 2.80 before a candidate may apply for admission to the Center for Teacher Education K-12 licensure program. Please see the Teacher Education Admission Packet for further information on admissions criteria. EDUC 115 and EDUC 215 must be taken before applying to the program.

Important information for this program:

- 2.8 cumulative GPA or higher in all CMU coursework.
- K-12 Art licensure candidates are expected to show proficiencies in State of Colorado Performance-Based and Art Model Content Standards. Formal evaluation of that knowledge is shown through a professional proficiency portfolio, developed throughout licensure coursework and reviewed by both Art Education and Teacher Education faculty at the end of the student teaching internship.
- Candidates are expected to earn a minimum grade of "B" in all licensure classes (EDUC prefix courses), which must be taken in sequence prescribed by the Center for Teacher Education. The licensure sequence is begun during the junior year (usually fall semester), and requires four semesters for completion.
- Professional dispositions for teaching are measured throughout the licensure sequence and include qualities such as ethical and responsible behaviors, personal presentation, ability to work in collegial capacities, ability to manage time, paperwork and resources, and an aptitude for elevating the academic standing of the Art Education field.
- Completion of admission to the K-12 Art Licensure program includes:
  - All requirements and prerequisite courses are met for the Center for Teacher Education's application for admission (usually completed during the sophomore year).
  - A meeting with Art Education faculty to discuss professional goals and establish a timeline for completion of requirements.
  - Must pass all studio and art history courses with a grade of "B" or higher.
  - Completion of ARTE 101, ARTE 102, ARTE 118, ARTE 119, ARTS 151, ARTS 152, ARTS 225, ARTS 241, ARTS 242, and ARTS 274 or ARTS 275 within the first 60 hours.
- Additional fees are required through the licensure program and range from $200-$300, covering basic proficiency tests, fingerprinting, and content exam, in addition to the cost of textbooks and art materials.
- Students are required to participate in exit examinations or other programs deemed necessary to comply with the college accountability requirement.
- Students must pass the PRAXIS II exam in the content area prior to beginning the student teaching internship.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Art Outcome 1: Interpret and apply formal elements and principles of design. (Critical Thinking)
2. Art Outcome 2: Demonstrate proper use of tools, materials, techniques, and proper use and care for equipment through quality craftsmanship. (Applied Learning)
3. Art Outcome 3: Generate individual response through concept and relevant sources of information to create personal content. (Communication Fluency and Information Literacy)
4. Art Outcome 4: Communicate clearly regarding the critical analysis of art and design both historical and contemporary. (Specialized Knowledge/ Communication Fluency)
5. Art Outcome 5: Reflect on and respond to ethical, social, civil, and/or environmental challenges as they relate to art, design, and new media. (Personal and Social Responsibility)
6. Art Outcome 6: Create and sustain a body of work through self-directed research, experimentation, risk-taking, and reflective analysis. (Applied Learning)
7. Art Outcome 7: Justify analysis of artwork based on concept and materials. (Critical Thinking)
8. Teacher Education Outcome 1: Demonstrate mastery of major area's content knowledge and pedagogical strategies through fieldwork with learners in professional settings. (Specialized Knowledge/Applied Learning)
9. Teacher Education Outcome 2: Design and establish a safe, inclusive, and respectful learning environment for a diverse population of students. (Specialized Knowledge/Applied Learning)

10. Teacher Education Outcome 3: Plan and deliver effective instruction to students, based on research-based pedagogical practices. (Communication Literacy/Information Literacy)
11. Teacher Education Outcome 4: Collect and analyze student assessment data and use results to inform planning and instruction. (Quantitative Fluency)
12. Teacher Education Outcome 5: Demonstrate professionalism through ethical conduct, reflection, and leadership. (Personal and Social Responsibility)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this degree:

- 2.8 cumulative CPA or higher in all CMU coursework.

Essential Learning Requirements

(31 semester hours)
See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [2]		
MATH 110	Mathematical Investigations-GTMA1 (or higher)	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
PSYC 233	Human Growth and Development-GTSS3 [3]	3
Select one Social and Behavioral Sciences course		3
Fine Arts		
FINE 101	The Living Arts-GTAH1	3
Natural Sciences [4]		
Select one Natural Sciences course with a lab		4
Select one Natural Sciences course		3

1 6 semester hours, must receive a grade of "B" or better and must be completed by the time the student has 60 semester hours.
2 3 semester hours, must receive a grade of "C" or better, must be completed by the time the student has 60 semester hours.
3 must receive a grade of "B" or better
4 one course must include a lab

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1

1 Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours

Foundation Courses

(18 semester hours, must pass all courses with a grade of "B" or higher. All foundation courses, along with ARTS 225, ARTS 241, ARTS 242, and ARTS 274 or ARTS 275 must be completed within the first 60 hours.)

Code	Title	Semester Credit Hours
ARTE 101	Two-Dimensional Design-GTAH1	3
ARTE 102	Three-Dimensional Design-GTAH1	3
ARTE 118	History of Art, Prehistory to Renaissance-GTAH1	3
ARTE 119	History of Art, Renaissance to Present-GTAH1	3
ARTS 151	Foundation Drawing I	3
ARTS 152	Foundation Drawing II: Figure Drawing	3
Total Semester Credit Hours		**18**

Program Specific Degree Requirements

(30 semester hours, must pass all courses with a grade of "B" or higher.)

- Candidates are expected to earn a minimum grade of "B" in all licensure classes (EDUC prefix courses), which must be taken in sequence prescribed by the Center for Teacher Education. The licensure sequence is begun during the junior year (usually fall semester), and requires four semesters for completion.

Code	Title	Semester Credit Hours
Core Courses		
Art Specialization		
ARTS 225	Introduction to Photography	3
ARTS 241	Beginning Hand Building	3
ARTS 242	Beginning Wheel Throwing	3
ARTT 270	Sculpture I	3
ARTS 274	Printmaking: Intaglio and Relief	3
or ARTS 275	Printmaking: Screen Printing and Lithography	
ARTS 291	Painting I: Introduction to Painting	3
Three semester hours of any ARTH 300-level course		3
ARTH 400	Art Theory	3
Art Certification Specialty		
6 semester hours of 300-Level ARTS or ARTT courses		6
Total Semester Credit Hours		**30**

K-12 Licensure Requirements

(32 semester hours, must earn a grade of "B" or better in each course.)

Program Requirements: ENGL 111, ENGL 112, PSYC 233, EDUC 115 and EDUC 215 (all with a grade of "B" or better) and formal acceptance to the Teacher Education Program

Code	Title	Semester Credit Hours
EDUC 115	What It Means To Be An Educator (8 field experience hours)	1
EDUC 215	Teaching as a Profession (12 field experience hours)	1
EDUC 342	Pedagogy and Assessment: Secondary and K-12 (20 field experience hours)	3
EDUC 343	Teaching to Diversity (20 field experience hours)	3
ARTD 410	Elementary Art Education Methods	3
ARTD 410L	Field/Studio Experience in Elementary Art Education Methods (40 field experience hours)	1
ARTD 412	Secondary Art Education Methods (40 field experience hours)	4
EDUC 442	Integrating Literacy Across the Curriculum: Secondary and K-12 Art (60 field experience hours)	3
EDUC 475	Classroom Management for K-12 Educators	1
EDUC 499D	Teaching Internship and Colloquia: Elementary for K-12 (300 field experience hours)	6
EDUC 499H	Teaching Internship and Colloquia: Secondary for K-12 (300 field experience hours)	6
Praxis II Exam Passed		
Total Semester Credit Hours		**32**

All EDUC prefix courses listed above must be completed with a grade of "B" or better to progress through the program sequence. Students must pass the PRAXIS II exam in the content area prior to commencing the internship. Also, ALL other coursework toward the degree must be successfully completed prior to the internship.

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours. 3 semester hours.

Code	Title	Semester Credit Hours
Select electives		3
Total Semester Credit Hours		**3**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
MATH 110	Mathematical Investigations-GTMA1	3
ARTE 118	History of Art, Prehistory to Renaissance-GTAH1	3
KINE 100	Health and Wellness	1
ARTE 101	Two-Dimensional Design-GTAH1	3
ARTS 151	Foundation Drawing I	3
	Semester Credit Hours	**16**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
KINA Activity		1
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - Natural Science		3
ARTE 102	Three-Dimensional Design-GTAH1	3
ARTE 119	History of Art, Renaissance to Present-GTAH1	3
EDUC 115	What It Means To Be An Educator	1
	Semester Credit Hours	**17**

Second Year		
Fall Semester		
PSYC 233	Human Growth and Development-GTSS3	3
ARTS 242	Beginning Wheel Throwing	3
FINE 101	The Living Arts-GTAH1	3
ARTS 152	Foundation Drawing II: Figure Drawing	3
Essential Learning - Natural Science with Lab		4
	Semester Credit Hours	**16**
Spring Semester		
ARTS 225	Introduction to Photography	3
ARTS 241	Beginning Hand Building	3
ARTS 274 or ARTS 275	Printmaking: Intaglio and Relief or Printmaking: Screen Printing and Lithography	3
EDUC 215	Teaching as a Profession	1
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
	Semester Credit Hours	**14**
Third Year		
Fall Semester		
ARTT 270	Sculpture I	3
Three semester hours of any ARTH 300-level course		3
ARTS 291	Painting I: Introduction to Painting	3
EDUC 342	Pedagogy and Assessment: Secondary and K-12	3
EDUC 343	Teaching to Diversity	3
	Semester Credit Hours	**15**
Spring Semester		
ARTH 400	Art Theory	3
ARTS Upper Division Certification Specialty		3
Essential Learning - Humanities		3
Essential Learning - History		3
ARTD 410	Elementary Art Education Methods	3
ARTD 410L	Field/Studio Experience in Elementary Art Education Methods	1
	Semester Credit Hours	**16**
Fourth Year		
Fall Semester		
ARTD 412	Secondary Art Education Methods	4
EDUC 442	Integrating Literacy Across the Curriculum: Secondary and K-12 Art	3
EDUC 475	Classroom Management for K-12 Educators	1
ARTS Upper Division Certification Specialty		3
Elective		3
	Semester Credit Hours	**14**
Spring Semester		
EDUC 499D	Teaching Internship and Colloquia: Elementary for K-12	6
EDUC 499H	Teaching Internship and Colloquia: Secondary for K-12	6
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**120**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Studio Art, Art (BFA)

Degree: Bachelor of Fine Arts
Major: Art
Concentration: Studio Art
Program Code: 3272

The BFA degree in Art with a concentration in Studio Art is designed to prepare students with strong technical skills in a variety of art media. This skill combined with an art historical background will allow them to develop an individual focus in their art. Students can take a variety of two-dimensional courses in drawing, painting, printmaking, or photography. In the three-dimensional area, they can study ceramics, metal casting and sculpture. Extensive studies in Art History engage the students in historic and contemporary artists, art movements, and artistic styles and allows students to understand and place their art within a historical context. A BFA with a concentration in Studio Art prepares the student for graduate school and a career as a professional artist.

Important information for this degree:

- 3.00 cumulative GPA or higher in all 200-, 300-, and 400-level Studio Art major courses.
- Minimum grade of "C" in all 200-, 300-, and 400-level Studio Art major courses.
- No more than 6 semester hours of independent study courses can be used toward the degree.
- Special requirements for admission into the Studio Art program: Every student who is a sophomore in academic standing, or a transfer student with 60 credits or more (including students transferring into a Studio Art emphasis from K-12 Teaching, Graphic Design, or Art History) must satisfy the following requirements:
  - Completion of ARTE 294 Sophomore Seminar with grade of "B" or better.

    - Completion of Art Foundation Courses ARTE 102, ARTE 104, ARTE 118, ARTE 119 and ARTS 151, ARTS 152, with a 3.00 cumulative GPA or higher.
- Additional fees are required throughout the studio art program for materials.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Interpret and apply formal elements and principles of design. (Critical Thinking)
2. Demonstrate proper use of tools, materials, techniques, use and care for equipment through quality craftsmanship, and analysis of scale, proportion, and measuring. (Applied Learning and Quantitative Literacy)
3. Generate individual response through concept and relevant sources of information to create personal content. (Communication Fluency and Information Literacy)
4. Communicate clearly regarding the critical analysis of art and design both historical and contemporary. (Specialized Knowledge/ Communication Fluency)
5. Reflect on and respond to ethical, social, civil, and/or environmental challenges as they relate to art, design, and new media. (Personal and Social Responsibility)
6. Determine the best medium, methods and artistic strategies for evaluating information critically and developing a message by finding relevant sources of information, and applying the information effectively to visual culture. (Information Literacy)
7. Create and sustain a body of work through self-directed research, experimentation, risk-taking, and reflective analysis. (Applied Learning)
8. Justify analysis of artwork based on concept and materials. (Critical Thinking)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/ certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this program:

- 3.00 cumulative GPA or higher in all 200-, 300-, and 400-level Studio Art major courses.
- Minimum grade of "C" in all 200-, 300-, and 400-level Studio Art major courses.
- No more than 6 semester hours of independent study courses can be used toward the degree.
- Special requirements for admission into the Studio Art program: Every student who is a sophomore in academic standing, or a transfer student with 60 credits or more (including students transferring into a Studio Art emphasis from K-12 Teaching, Graphic Design, or Art History) must satisfy the following requirements:
    - Completion of ARTE 294 Sophomore Seminar with grade of "B" or better.
    - Completion of Art Foundation Courses ARTE 102, ARTE 104, ARTE 118, ARTE 119 and ARTS 151, ARTS 152, with a 3.00 cumulative GPA or higher.
- Additional fees are required throughout the studio art program for materials.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 110	Mathematical Investigations-GTMA1	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [2]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

1 Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

2 One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

1 Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(18 semester hours, minimum GPA of 3.0 required for these courses.)

Code	Title	Semester Credit Hours
ARTE 102	Three-Dimensional Design-GTAH1	3
ARTE 104	Color Theory and Design	3
ARTE 118	History of Art, Prehistory to Renaissance-GTAH1	3
ARTE 119	History of Art, Renaissance to Present-GTAH1	3
ARTS 151	Foundation Drawing I	3
ARTS 152	Foundation Drawing II: Figure Drawing	3
Total Semester Credit Hours		**18**

Program Specific Degree Requirements

(58 semester hours, must pass all courses with a grade of "C" or higher, unless otherwise noted.)

Code	Title	Semester Credit Hours
Core Courses		
Art History 200-Level		
ARTH 220	History of Modern Art	3
Art History Upper Division		
Any 300-Level ARTH Course		3
ARTH 400	Art Theory	3
Art Studio 200-Level		
ARTS 225	Introduction to Photography	3
ARTS 274	Printmaking: Intaglio and Relief	3
or ARTS 275	Printmaking: Screen Printing and Lithography	
ARTS 241	Beginning Hand Building	3
or ARTS 242	Beginning Wheel Throwing	
ARTS 291	Painting I: Introduction to Painting	3
ARTT 270	Sculpture I	3
Professional Practice		
ARTE 294	Sophomore Seminar [1]	3
ARTE 485	Senior Exhibition [1]	1
ARTE 494	Studio Art Senior Seminar [1]	3
Art Studio 300-Level		
15 semester hours of ARTS or ARTT 300-Level courses		15
Art Studio 400-Level		
12 semester hours of ARTS or ARTT 400-Level courses		12
Total Semester Credit Hours		**58**

1 Minimum grade of "B" required for ARTE 294, ARTE 494, and ARTE 485 for this program.

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours, including 40 upper division hours. 7 semester hours, at least 3 of which must be upper division.

Code	Title	Semester Credit Hours
Select electives		7
Total Semester Credit Hours		**7**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
MATH 110	Mathematical Investigations-GTMA1 (or higher)	3
ARTE 104	Color Theory and Design	3
ARTE 118	History of Art, Prehistory to Renaissance-GTAH1	3
ARTS 151	Foundation Drawing I	3
	Semester Credit Hours	**15**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
KINA Activity		1
ARTE 102	Three-Dimensional Design-GTAH1	3
ARTE 119	History of Art, Renaissance to Present-GTAH1	3
ARTS 152	Foundation Drawing II: Figure Drawing	3
ARTS or ARTT 200-Level Studio		3
	Semester Credit Hours	**16**
Second Year		
Fall Semester		
KINE 100	Health and Wellness	1
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - Natural Science		3
ARTS or ARTT 200-Level Studio (2 courses)		6
ARTH 220	History of Modern Art	3
	Semester Credit Hours	**16**
Spring Semester		
ARTE 294	Sophomore Seminar	3
Essential Learning - Natural Science with Lab		4
Essential Learning - Humanities		3
ARTS or ARTT 200-Level Studio (2 courses)		6
	Semester Credit Hours	**16**
Third Year		
Fall Semester		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Essential Learning - Fine Arts		3
ARTS or ARTT 300-Level Studio (3 courses)		9
	Semester Credit Hours	**16**
Spring Semester		
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - History		3
ARTS or ARTT 300-Level Studio (2 courses)		6
Any 300 Level ARTH Course		3
	Semester Credit Hours	**15**
Fourth Year		
Fall Semester		
ARTE 494	Studio Art Senior Seminar	3
ARTS or ARTT 400-Level Studio (2 courses)		6
General Elective		4
	Semester Credit Hours	**13**
Spring Semester		
ARTH 400	Art Theory	3
ARTS or ARTT 400-Level Studio (2 courses)		6
ARTE 485	Senior Exhibition	1
General Elective		3
	Semester Credit Hours	**13**
	Total Semester Credit Hours	**120**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Art History (BA)

Degree: Bachelor of Arts
Major: Art History
Program Code: 3278

The BA degree in Art History provides students with an understanding of the importance of the visual arts to society and culture through the study of historic and contemporary artists, art movements and styles. Art History teaches students to critically analyze visual images in their original social and political context; the emphasis on visual literacy and critical thinking are especially valuable today. This degree can lead to professional employment in art museums and galleries, art publishing houses, and other areas of art services. The degree will also prepare students for advanced, graduate-level art history studies.

Important information about this major:

- 3.00 cumulative GPA or higher in all art foundation or art major courses with no individual course grades lower than a "C".

- No more than 6 semester hours of independent study courses can be used toward the degree.
- Additional fees are required throughout the art program for materials.
- KINA Activity courses can NOT be used to fulfill general elective credit requirements.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Interpret and apply formal elements and principles of design (Critical Thinking)
2. Demonstrate proper use of tools, materials, techniques, use and care for equipment through quality craftsmanship, and analysis of scale, proportion, and measuring. (Applied Learning and Quantitative Literacy)
3. Generate individual response through concept and relevant sources of information to create personal content (Communication Fluency and Information Literacy)
4. Communicate clearly regarding the critical analysis of art and design both historical and contemporary (Specialized Knowledge/ Communication Fluency)
5. Reflect on and respond to ethical, social, civil, and/or environmental challenges as they relate to art, design, and new media (Personal and Social Responsibility)
6. Demonstrate an array of critical approaches to the study of historic art and visual culture in written or oral presentations (Specialized Knowledge)
7. Execute research projects involving visual analysis, reading research, critical thinking, writing and standard methods of documentation (Critical Thinking)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/ certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this Degree:

- 3.00 cumulative GPA or higher in all art foundation or art major courses with no individual course grades lower than a "C".
- Additional fees are required throughout the art program for materials.
- KINA Activity courses can NOT be used to fulfill general elective credit requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 110	Mathematical Investigations-GTMA1	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3

Natural Sciences [2]	
Select one Natural Sciences course with a lab	4
Select one Natural Sciences course	3
Total Semester Credit Hours	**31**

[1] Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

[2] One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
KINA 1XX	Activity Course	1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(18 semester hours, must maintain a cumulative 3.0 GPA, minimum grade of "C" is required in each course.)

Code	Title	Semester Credit Hours
ARTE 101	Two-Dimensional Design-GTAH1	3
ARTE 102	Three-Dimensional Design-GTAH1	3
ARTE 118	History of Art, Prehistory to Renaissance-GTAH1	3
ARTE 119	History of Art, Renaissance to Present-GTAH1	3
Two consecutive courses in the same foreign language		6
Total Semester Credit Hours		**18**

Program Specific Degree Requirements

(39 semester hours, must maintain a cumulative 3.0 GPA, minimum grade of "C" is required in each course.)

Code	Title	Semester Credit Hours
Art Specialization		
ARTE 294	Sophomore Seminar	3
ARTH 220	History of Modern Art	3
ARTS 151	Foundation Drawing I	3
Art History Capstone		
ARTH 400	Art Theory	3
Art History Upper Division		
Select 18 semester hours of ARTH 300- or 400-level courses		18
Studio Art & Design Introduction		
Choose one course from three of the following art and design disciplines:		9
Animation, Film, Photography and Motion Design		
ARTA 123	Lights! Camera! Action!	
ARTA 223	Image and Motion	
ARTA 224	Principles of Film	
ARTA 225	Principles of Animation	
Ceramics		
ARTS 241	Beginning Hand Building	
ARTS 242	Beginning Wheel Throwing	
Graphic Design		
ARTG 112	Graphic Design I	
ARTG 120	UX Design I	
Drawing		
ARTS 152	Foundation Drawing II: Figure Drawing	
Painting		
ARTS 291	Painting I: Introduction to Painting	
Photography		
ARTA 222	Principles of Digital Photography	
ARTS 225	Introduction to Photography	
Printmaking		
ARTS 274	Printmaking: Intaglio and Relief	
Sculpture		
ARTT 270	Sculpture I	
Total Semester Credit Hours		**39**

General Elective

(All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours. 26 semester hours,19 of which must be upper-level credits. ARTE 499 is a possible elective.)

Code	Title	Semester Credit Hours
Select electives		26
Total Semester Credit Hours		**26**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ARTE 101	Two-Dimensional Design-GTAH1	3
ARTE 118	History of Art, Prehistory to Renaissance-GTAH1	3
ARTS 151	Foundation Drawing I	3
ENGL 111	English Composition I-GTCO1	3
MATH 110	Mathematical Investigations-GTMA1	3
	Semester Credit Hours	**15**
Spring Semester		
ARTE 102	Three-Dimensional Design-GTAH1	3
ARTE 119	History of Art, Renaissance to Present-GTAH1	3
ENGL 112	English Composition II-GTCO2	3
Essential Learning - Humanities		3

Essential Learning - Social and Behavioral Sciences		3
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
Essential Learning - Natural Science		3
Essential Learning - Fine Arts		3
Essential Learning - Social and Behavioral Sciences		3
Foreign Language I		3
Studio Art Introduction		3
	Semester Credit Hours	**15**
Spring Semester		
ARTE 294	Sophomore Seminar	3
Essential Learning - Natural Science with Lab		4
Foreign Language II		3
KINA 1XX	Activity Course	1
KINE 100	Health and Wellness	1
ARTH 220	History of Modern Art	3
	Semester Credit Hours	**15**
Third Year		
Fall Semester		
ESSL 200	Essential Speech	1
ESSL 290	Maverick Milestone	3
General Elective (2 courses)		6
Upper Division Art History (2 courses)		6
	Semester Credit Hours	**16**
Spring Semester		
Essential Learning - History		3
General Elective		6
Studio Art Introduction		3
Upper Division Art History		3
	Semester Credit Hours	**15**
Fourth Year		
Fall Semester		
General Elective (2 courses)		5
Studio Art Introduction		3
Upper Division Art History (2 courses)		6
	Semester Credit Hours	**14**
Spring Semester		
General Electives (3 courses)		9
Upper Division Art History		3
ARTH 400	Art Theory	3
	Semester Credit Hours	**15**
	Total Semester Credit Hours	**120**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Art History (Minor)

Overview

Minor: Art History
Program Code: M202

The Art History Minor will acquaint students with a broad range of art from different time periods and geographical locations. The minor allows students who are interested in learning about art the ability to do so without changing their major. A student who completes the minor will be able to talk about art broadly and understand visual culture in a deeper way. The program also fosters critical thinking skills, not only about art, but about world cultures and the ethics of collecting and displaying art.

Important information about this program:

- Students will learn about art over a broad range of time and geography
- Students will be prepared to apply to art history graduate programs after developing a general understanding of art from various times and places, as well as developing their writing and research skills.

An art history minor provides inroads to several opportunities and careers, including: preparing students for graduate school in art history; antiques dealer; architectural conservation; archivist; art advisor; art appraiser; art buyer; art collection manager; art conservator; art consultant; art database manager; art handler; art history fellow; art investment; art investor; art librarian; art marketing; art teacher; art writer; collection management; gallery director; grant writer; heritage officer; journalist; museum curator; picture editor; preservation and conservation; and project coordinator.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(21 Semester Hours)

Code	Title	Semester Credit Hours
ARTE 118	History of Art, Prehistory to Renaissance-GTAH1	3
ARTE 119	History of Art, Renaissance to Present-GTAH1	3
ARTH 220	History of Modern Art [1]	3
ARTH 318	Development of Contemporary Art	3
ARTH 400	Art Theory	3
Choose six hours from any upper-division ARTH courses		6
Total Semester Credit Hours		**21**

[1] ARTH 220 requires ARTE 101 and ARTE 102 as prerequisites

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student’s responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar’s Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar’s Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the “Intent to Graduate” form.

If a student’s petition for graduation is denied, it will be their responsibility to consult the Registrar’s Office regarding next steps.

Studio Art (BA)

Degree: Bachelor of Arts
Major: Studio Art
Program Code: 3277

A Bachelor of Art in Studio Art gives students strong technical skills and an art historical background while providing a general exposure to all of the disciplines in the studio art program. A BA in Studio Art provides students numerous career paths requiring an art education. Students take a variety of 2D and 3D courses in drawing, painting, printmaking, ceramics, and sculpture. Students may customize their degree to meet their individual needs and would be well prepared to enter the art field and look for jobs that require a studio art education.

Important information about this major:

- No more than 6 semester hours of independent study courses can be used toward the degree.
- Additional fees are required throughout the studio art program for materials.

For more information on what you can do with this major, visit Career Services’ What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Interpret and apply formal elements and principles of design. (Critical Thinking)
2. Demonstrate proper use of tools, materials, techniques, and proper use and care for equipment through quality craftsmanship. (Applied Learning, Quantitative Literacy)
3. Generate individual response through concept and relevant sources of information to create personal content. (Communication Fluency and Information Literacy)
4. Communicate clearly regarding the critical analysis of art and design both historical and contemporary. (Specialized Knowledge/ Communication Fluency)

5. Reflect on and respond to ethical, social, civil, and/or environmental challenges as they relate to art, design, and new media. (Personal and Social Responsibility)
6. Create and sustain a body of work through self-directed research, experimentation, risk-taking, and reflective analysis. (Applied Learning)
7. Justify analysis of artwork based on concept and materials. (Critical Thinking)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 110	Mathematical Investigations-GTMA1	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [2]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

[1] Must receive a grade of “C” or better and must be completed by the time the student has 60 semester hours.

[2] One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(18 semester hours, must earn a grade of "C" or better in each course.)

Code	Title	Semester Credit Hours
ARTE 102	Three-Dimensional Design-GTAH1	3
ARTE 104	Color Theory and Design	3
ARTE 119	History of Art, Renaissance to Present-GTAH1	3
ARTS 151	Foundation Drawing I	3
Select two consecutive classes in the same foreign language		6
Total Semester Credit Hours		**18**

Program Specific Degree Requirements

(39 semester hours)

- No more than 6 semester hours of independent study courses can be used toward the degree.
- Additional fees are required throughout the studio art program for materials.

Code	Title	Semester Credit Hours
Art History		
Select two 300- or 400-level Art History courses		6
Art Studio		
200 Level Requirements:		
ARTS 291	Painting I: Introduction to Painting	3
ARTT 270	Sculpture I	3
ARTS 241	Beginning Hand Building	3
or ARTS 242	Beginning Wheel Throwing	
ARTS 274	Printmaking: Intaglio and Relief	3
or ARTS 275	Printmaking: Screen Printing and Lithography	
300 Level Requirements:		
Any nine semester hours of ARTS or ARTT 300-Level courses		9
400 Level Requirements:		
Any nine semester hours of ARTS or ARTT 400-Level courses		9
Professional Practice		
ARTE 294	Sophomore Seminar	3
Total Semester Credit Hours		**39**

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours. 26 semester hours; 16 hours of upper division may be needed.

Code	Title	Semester Credit Hours
Select electives		26
Total Semester Credit Hours		**26**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
MATH 110	Mathematical Investigations-GTMA1	3
ARTE 119	History of Art, Renaissance to Present-GTAH1	3
ARTS 151	Foundation Drawing I	3
ARTE 104	Color Theory and Design	3
	Semester Credit Hours	**15**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
Essential Learning - Humanities		3
ARTS 291	Painting I: Introduction to Painting	3
ARTE 102	Three-Dimensional Design-GTAH1	3
ARTS 241	Beginning Hand Building	3
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - Natural Science		3
ARTS 274 or ARTS 275	Printmaking: Intaglio and Relief or Printmaking: Screen Printing and Lithography	3
ARTT 270	Sculpture I	3
Upper Division Art History Elective		3
	Semester Credit Hours	**15**
Spring Semester		
Essential Learning - Natural Science with Lab		4
KINE 100	Health and Wellness	1
KINA Activity		1
Essential Learning - History		3
ARTS or ARTT 300-Level Studio		3
ARTE 294	Sophomore Seminar	3
	Semester Credit Hours	**15**
Third Year		
Fall Semester		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Foundation Course - Foreign Language		3
ARTS or ARTT 300-Level Studio (2 courses)		6
Essential Learning - Fine Arts		3
	Semester Credit Hours	**16**
Spring Semester		
Essential Learning - Social and Behavioral Sciences		3
Foundation Course - Foreign Language		3
ARTS or ARTT 400-Level Studio (2 courses)		6
Upper Division Art History Elective		3
	Semester Credit Hours	**15**
Fourth Year		
Fall Semester		
ARTS or ARTT 400-Level Studio		3
Electives (4 courses)		11
	Semester Credit Hours	**14**
Spring Semester		
Electives (5 courses)		15
	Semester Credit Hours	**15**
	Total Semester Credit Hours	**120**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Studio Art (Minor)

Minor: Studio Art
Program Code: M200

The Studio Art Minor will acquaint students with some of the core elements in either two or three-dimensional studio art. Students will develop skills, sensitivity, and aesthetic judgment while pursuing individual interests within studio areas such as drawing, painting, printmaking, ceramics or sculpture. A background in the visual arts can provide a variety of opportunities as a studio artist, within art organizations, galleries, and applied design.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(24 semester hours, must maintain a 3.00 cumulative GPA or higher.)

Code	Title	Semester Credit Hours
Required Courses		
ARTE 101	Two-Dimensional Design-GTAH1	3
or ARTE 104	Color Theory and Design	
ARTE 102	Three-Dimensional Design-GTAH1	3
ARTS 151	Foundation Drawing I	3
Select 2 courses from the following:		6
ARTS 225	Introduction to Photography	
ARTS 241	Beginning Hand Building	
or ARTS 242	Beginning Wheel Throwing	
ARTS 274	Printmaking: Intaglio and Relief	
or ARTS 275	Printmaking: Screen Printing and Lithography	
ARTS 291	Painting I: Introduction to Painting	
ARTT 270	Sculpture I	
Select 9 semester hours of any Studio Art (ARTS or ARTT) 300-level or 400-level classes.		9
Total Semester Credit Hours		**24**

Advising and Graduation
Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the "Intent to Graduate" form.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Film Studies and Digital Production (Minor)

Minor: Film Studies and Digital Production
Program Code: M203

The Film Studies and Digital Production Minor will acquaint students with some of the core elements related to the study and profession of film, video editing and video production. This minor represents a unique collaboration with the Departments of Art and Design; Language, Literature and Communications and the Theatre Arts Department. The minor has been designed by these three departments to provide a student with a secondary skill set that may be useful for obtaining employment in the area of film, video editing and video production. This skill set has been determined to be a top request nationwide among prospective employers. A background in Film Studies and Digital Production can enhance professional opportunities in the areas of public relations, business, graphic design, film, marketing and/or advertising.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(18 Semester Hours)

Code	Title	Semester Credit Hours
THEA 130	Script Analysis	3
ARTA 224	Principles of Film	3
or MASS 271	Video Production	
ENGL 390	Introduction to Film Studies	3
9 semester hours of upper-division courses chosen from the following:		9
THEA 376	World's Greatest Films	
THEA 381	Directing I	
THEA 453	Advanced Acting: Acting for the Camera	
ARTA 326	Intermediate Filmmaking	
ARTA 327	Sound Design and Post-Production	
ARTA 421	Advanced Filmmaking I	
ENGL 389	Screenwriting	
MASS 357	Documentary and News Producing	
MASS 471	Advanced Video Production	
MASS 496	Topics	

Advising and Graduation
Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic

advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the "Intent to Graduate" form.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Athletic Coaching and Officiating

Program Description

There is lack of professionally trained coaches and officials in the United States. This minor combines courses in Sport Management and Kinesiology to prepare students to enter the fields of coaching and officiating. Courses will focus on overarching topics of coaching and officiating such as: the certification process, roster management, budget, legal issues, ethics, behavior management as well as the philosophical and psychological components associated with coaching and officiating. Students will gain theoretical knowledge along with practical experience, while working towards industry certification. This minor is best suited for Sport Management and education students, and will be open to all majors.

Contact Information

Department of Kinesiology
Maverick Center 237B
970.248.1635

Programs of Study Bachelors/Minors

- Athletic Coaching and Officiating (Minor) (p. 164)

Athletic Coaching and Officiating (Minor)

Minor: Athletic Coaching and Officiating
Program Code: M105

There is lack of professionally trained coaches and officials in the United States. This minor combines courses in Sport Management and Kinesiology to prepare students to enter the fields of coaching and officiating. Courses will focus on overarching topics of coaching and officiating such as: the certification process, roster management, budget, legal issues, ethics, behavior management as well as the philosophical and psychological components associated with coaching and officiating. Students will gain theoretical knowledge along with practical experience, while working towards industry certification. This minor is best suited for Sport Management and education students, and will be open to all majors.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(21 semester hours)

Code	Title	Semester Credit Hours
KINA 128	Intermediate Weight Training	1
KINE 213	Applications of Physical Fitness and Exercise Prescription	3
KINE 265	Emergency Care	3
KINE 307	Philosophy and Psychology of Coaching	3
KINE 308	Philosophy and Psychology of Officiating	3
KINE 342	Sport Law and Recreation Risk Management	3
KINE 397	Practicum	2
Choose one of the following:		*3*
KINE 214	Methods of Team Activities	
KINE 403	Advanced Strength and Conditioning	
KINE 480	Inclusive Physical Activity	
Total Semester Credit Hours		**21**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the "Intent to Graduate" form.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Athletic Training

Program Description

The Athletic Training program is a professional program offered in the Department of Kinesiology, leading to a Master of Science in Athletic Training degree (MSAT).

Athletic trainers (ATs) are highly qualified, multi-skilled health care professionals who collaborate with physicians to provide preventative services, emergency care, clinical diagnosis, therapeutic intervention and rehabilitation of injuries and medical conditions. Athletic trainers work under the direction of a physician as prescribed by state licensure statutes.

The MSAT program is a two-year (six-semesters), year-round program that is accredited by the Commission on Accreditation of Athletic Training Education (CAATE). Admission into the program is competitive. The MSAT program ensures the highest quality of education by offering collective learning experiences that enable the student to successfully challenge the Board of Certification examination and pursue numerous career paths as a certified athletic trainer. Certified athletic trainers gain employment in a variety of settings including but not limited to: high school/college athletic programs, professional sport programs, outpatient physical therapy/sports medicine clinics, industrial/corporate settings, and the US military.

There are two types of applicants for the MSAT program. The first type is the **Traditional MSAT** applicant who has earned an undergraduate degree. The second type of applicant has not yet earned their undergraduate degree and is currently enrolled at CMU and may qualify to pursue the MSAT as part of a Bachelors degree **3+2 MSAT** concurrent enrollment program.

Colorado Mesa University Master of Science in Athletic Training is accredited by the Commission on Accreditation of Athletic Training Education (CAATE). The program earned a 5-year initial accreditation in February 2021 and holds the accreditation status of *Active-in good standing*.

Contact Information

Master of Science in Athletic Training Program
Foster Field House 132
970.248.1194

Programs of Study
Graduate

- Athletic Training (MS) (p. 166)

Athletic Training (MS)

Degree: Master of Science
Major: Athletic Training
Program Code: 8155

The Athletic Training program is a professional program offered in the Department of Kinesiology, leading to a Master of Science in Athletic Training degree (MSAT).

Athletic trainers (ATs) are highly qualified, multi-skilled health care professionals who collaborate with physicians to provide preventative services, emergency care, clinical diagnosis, therapeutic intervention and rehabilitation of injuries and medical conditions. Athletic trainers work under the direction of a physician as prescribed by state licensure statutes.

The MSAT program is a six semester clinical program that is accredited by the Commission on Accreditation of Athletic Training Education (CAATE). Admission into the program is competitive. The MSAT program ensures the highest quality of education by offering collective learning experiences that enable the student to successfully challenge the Board of Certification examination and pursue numerous career paths as a certified athletic trainer. Certified athletic trainers gain employment in a variety of settings including but not limited to: high school/college athletic programs, professional sport programs, outpatient physical therapy/sports medicine clinics, industrial/corporate settings, and the US military.

There are two types of applicants for the MSAT program. The first type is the **Traditional MSAT** applicant who has earned an undergraduate degree. The second type of applicant has not yet earned their undergraduate degree and is currently enrolled at CMU in the BS Exercise Science program and may qualify to pursue the MSAT as part of a Bachelor degree **3+2 MSAT** concurrent enrollment program.

Important information for the Traditional MSAT applicant

Applicants must meet the following criteria for the MSAT program:

- Earned bachelor's degree or higher from a regionally accredited institution of higher learning
- Minimum overall GPA of 3.0 (on 4.0 scale)
- Minimum science GPA of 3.0 (on 4.0 scale)
  - Science GPA includes all courses with subject codes of Biology/Zoology, Chemistry, and Physics

Prerequisite Course Requirements

- The candidate must have completed the following prerequisites with a grade of C or higher
- All prerequisite coursework must be earned from a regionally accredited institution and be verifiable through official transcripts, or accepted by a U.S. equivalency reporting agency
- A single course cannot be used to meet multiple requirements
- All applicants must complete the required prerequisites
  - All transcripts for outstanding prerequisite coursework must be received by CMU before classes begin
- Prerequisite coursework (CMU equivalent)
  - Biology[2] (BIOL 101/101L)
  - General Chemistry[2] (CHEM 131/131L)
  - Physics (PHYS 100)
  - Psychology (PSYC 150 or PSYC 233)
  - Human Anatomy[1,2] (BIOL 209/209L & BIOL 210/210L)
  - Human Physiology[1,2] (BIOL 209/209L and 210/210L)
  - Nutrition (KINE 203)
  - Exercise Physiology[2] (KINE 303/303L)

[1] Anatomy & Physiology prerequisites may be met by completing either a two semester (or 3 quarters) combined courses of Anatomy & Physiology, or one course in Human Anatomy and a separate course in Human Physiology.

[2] Associated lab course preferred but not required.

Other Requirements

- 40 hours of post-secondary shadowing/observation with an Athletic Trainer.
- Official transcripts from all college and university work
- Statement of intent
- Resume
- 2 letters of recommendation
- Note: Slight preferences are given to those applicants with ties to the western slope of Colorado
- Pay CMU Application fee of $50 if admitted

Other Information

- The Graduate Record Examination (GRE) is not required for admission to the Master of Science in Athletic Training Program.
- To be considered for an interview, all applicants for whom English is a second language must achieve a minimum score of 550 paper-based on the Test of English as a Foreign Language (TOEFL; 213 on the computer-based tests or 79-80 on the internet-based test), within the past two years.
- Advanced placement will not be granted under any circumstance.
- All students who enter the program must fulfill all program requirements.

Important information for the 3+2 MSAT applicant

Applicants must meet the following criteria in addition to all of the criteria for the MSAT program:

- Classified as a senior (i.e., at least 90 credit hours including hours in which student is currently enrolled and for which the student is registered for a future semester).
- At least a 3.0 overall GPA and must have at least a 3.0 GPA in courses in the student's declared major.
- A 3+2 Concurrent Enrollment application form to the MSAT Program Director.
- Submit to the MSAT Program Director how all remaining bachelor degree requirements and all MSAT requirements will be met in two years.
- Complete the MSAT program admission process.

After admission into the Bachelor Degree 3+2 MSAT Concurrent Enrollment Program, the student must:

- Follow the two-year recommended course sequence (see below) for the MSAT course component.
- Notify the MSAT Program Director immediately if justifiable life circumstances do not allow the student to complete both undergraduate and graduate programs within two years of admission into the program.
- Complete ALL bachelor degree graduation requirements in the same semester or prior to completing all MSAT graduation requirements.
- Submit the necessary paperwork to graduate with the bachelor degree to the Department of Kinesiology with a copy to the MSAT Program Director AND must submit the necessary paperwork to graduate with the MSAT to the MSAT Program Director. This requirement must be met before the published deadline in the semester prior to intended graduation.

Important information for this program:

- All courses and course sequencing are required and must be completed at CMU.
- Students must successfully pass all didactic and clinical course work as well as a summative exit exam.
- Students will complete a culminating project.

All CMU masters-level graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, information literacy, and ethical reasoning. In addition to these campus-wide student learning outcomes, a graduate of this program will be able to:

1. Develop appropriate prevention and health promotion strategies. (Critical Thinking, Information Literacy, Ethical Reasoning)
2. Evaluate pathologies common to a physically active population in a correct and efficient manner. (Specialized Knowledge, Critical Thinking, Information Literacy)
3. Design therapeutic interventions to maximize a patient's participation and health related quality of life. (Specialized Knowledge, Critical Thinking, Information Literacy, Ethical Reasoning)
4. Propose and integrate appropriate psychosocial techniques into a patient's treatment program, recognizing when and how to refer if necessary. (Information Literacy, Ethical Reasoning)
5. Demonstrate the ability to clearly communicate specialized knowledge. (Communication Fluency)
6. Evaluate research to provide an evidence-based approach to patient care (Quantitative Fluency)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional requirements apply to all CMU graduate-level degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Graduate certificates consist of a minimum of 5 credit hours. Master's degrees consist of a minimum of 30 credit hours. Doctoral degrees consist of a minimum of 60 credit hours.
- All credits in a graduate program must be minimally at the 500-level.
- At least fifty percent of the credit hours must be taken at CMU.
- Students must achieve a 3.00 cumulative GPA or higher in all CMU coursework.
- Students may not apply coursework with a grade lower than a "B" toward graduation requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.

- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Graduate Degree Requirements (p. 87)" in this catalog for a complete list of graduation requirements.
- All policies for graduate degrees are outlined in the Graduate Policies and Procedures Manual, Capstone Guidelines Manual, and Thesis and Dissertation Guidelines Manual, all of which are provided on the Graduate Studies website.

Program Specific Requirements

(53 semester hours)

Code	Title	Semester Credit Hours
ATRN 506	Clinical Skills in Athletic Training	1
ATRN 507	Acute Care in Athletic Training	3
ATRN 508	Therapeutic Modalities	2
ATRN 513	Administration in Athletic Training	3
ATRN 515	Seminar in Evidence-Based Practice Research I	1
ATRN 516	Seminar in Evidence-Based Practice Research II	1
ATRN 517	Seminar in Evidence-Based Practice Research III	1
ATRN 531	Clinical Education in Athletic Training I	2
ATRN 532	Clinical Education in Athletic Training II	2
ATRN 536	Clinical Education in Athletic Training III	4
ATRN 537	Clinical Education in Athletic Training IV	4
ATRN 540	Clinical Anatomy	3
ATRN 541	Clinical Evaluation of Lower Extremity Injuries	3
ATRN 542	Clinical Evaluation of Head and Spine Injuries	3
ATRN 543	Clinical Evaluation of Upper Extremity Injuries	3
ATRN 544	General Health Conditions and Pharmacology	3
ATRN 551	Principles of Rehabilitation	3
ATRN 552	Advanced Rehabilitation and Manual Therapy	3
ATRN 553	Psychosocial Interventions in Athletic Training	1
ATRN 554	Functional Performance in Athletic Training	3
ATRN 580	Transition to Practice in Athletic Training	2
ATRN 593	Capstone Research Project in Athletic Training	2
Total Semester Credit Hours		**53**

Suggested Course Plan

3+2 Option Sequence

First Year		
Summer Semester		**Semester Credit Hours**
Electives for BS Exercise Science		3
ATRN 506	Clinical Skills in Athletic Training	1
ATRN 507	Acute Care in Athletic Training	3
ATRN 508	Therapeutic Modalities	2
ATRN 540	Clinical Anatomy	3
	Semester Credit Hours	**12**
Fall Semester		
ATRN 515	Seminar in Evidence-Based Practice Research I	1
ATRN 531	Clinical Education in Athletic Training I	2
ATRN 541	Clinical Evaluation of Lower Extremity Injuries	3
ATRN 542	Clinical Evaluation of Head and Spine Injuries	3
ATRN 551	Principles of Rehabilitation	3
KINE 403	Advanced Strength and Conditioning (Counts towards BS - Exercise Science)	3
	Semester Credit Hours	**15**
Spring Semester		
ATRN 516	Seminar in Evidence-Based Practice Research II	1
ATRN 532	Clinical Education in Athletic Training II (May fulfill KINE 499 requirement for BS - Exercise Science) [1]	2
ATRN 543	Clinical Evaluation of Upper Extremity Injuries	3
ATRN 544	General Health Conditions and Pharmacology	3
ATRN 552	Advanced Rehabilitation and Manual Therapy	3
KINE 405	Sports Nutrition	3
KINE 494	Kinesiology Senior Seminar (Counts towards BS - Exercise Science)	1
	Semester Credit Hours	**16**
Second Year		
Summer Semester		
Electives for BS Exercise Science		3
ATRN 553	Psychosocial Interventions in Athletic Training	1
ATRN 554	Functional Performance in Athletic Training	3
	Semester Credit Hours	**7**
Fall Semester		
ATRN 513	Administration in Athletic Training	3
ATRN 517	Seminar in Evidence-Based Practice Research III	1
ATRN 536	Clinical Education in Athletic Training III	4
	Semester Credit Hours	**8**
Spring Semester		
ATRN 537	Clinical Education in Athletic Training IV	4
ATRN 580	Transition to Practice in Athletic Training	2
ATRN 593	Capstone Research Project in Athletic Training	2
	Semester Credit Hours	**8**
	Total Semester Credit Hours	**66**

[1] Course substitution form and department approval required to apply toward Bachelor's Degree.

Traditional MSAT Sequence

First Year		
Summer Semester		**Semester Credit Hours**
ATRN 506	Clinical Skills in Athletic Training	1
ATRN 507	Acute Care in Athletic Training	3
ATRN 508	Therapeutic Modalities	2
ATRN 540	Clinical Anatomy	3
	Semester Credit Hours	**9**
Fall Semester		
ATRN 515	Seminar in Evidence-Based Practice Research I	1
ATRN 531	Clinical Education in Athletic Training I	2
ATRN 541	Clinical Evaluation of Lower Extremity Injuries	3
ATRN 542	Clinical Evaluation of Head and Spine Injuries	3
ATRN 551	Principles of Rehabilitation	3
	Semester Credit Hours	**12**
Spring Semester		
ATRN 516	Seminar in Evidence-Based Practice Research II	1
ATRN 532	Clinical Education in Athletic Training II	2
ATRN 543	Clinical Evaluation of Upper Extremity Injuries	3

ATRN 544	General Health Conditions and Pharmacology	3
ATRN 552	Advanced Rehabilitation and Manual Therapy	3
	Semester Credit Hours	**12**
Second Year		
Summer Semester		
ATRN 553	Psychosocial Interventions in Athletic Training	1
ATRN 554	Functional Performance in Athletic Training	3
	Semester Credit Hours	**4**
Fall Semester		
ATRN 513	Administration in Athletic Training	3
ATRN 517	Seminar in Evidence-Based Practice Research III	1
ATRN 536	Clinical Education in Athletic Training III	4
	Semester Credit Hours	**8**
Spring Semester		
ATRN 537	Clinical Education in Athletic Training IV	4
ATRN 580	Transition to Practice in Athletic Training	2
ATRN 593	Capstone Research Project in Athletic Training	2
	Semester Credit Hours	**8**
	Total Semester Credit Hours	**53**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Aviation Technology

Program Description

The Aviation Technology program with a Fixed-wing emphasis will provide a technical certificate for college credit as identified in the Colorado Mesa University mission established by the Colorado Legislature. The goals of the program are: to prepare the students for FAA Certification as a Commercial Pilot with an Instrument Rating and as a Certified Flight Instructor. In addition, the program offers opportunities to enhance knowledge and expertise in the field of aviation by improving technical skills. Successful completion of the Aviation Technology program will also help prepare AAS students for BS programs in Aviation Technology.

Additional requirements for admission to this program

1. You **must first contact** the Director of Aviation at 970-255-2683.
2. **Fill out a secondary application**. Applications open November 1st and will close January 31st. New private pilot students **are only accepted** during the fall semester. The first steps in the application are:
   a. Apply to CMU.
   b. Complete a flight physical exam with an FAA-designated Aviation Medical Examiner. Required certificate from the Aviation Medical Examiner must be a minimum third class, first class is recommended. To help locate a qualified doctor by city and state, go to https://www.faa.gov/pilots/amelocator.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Acquire substantial aeronautical knowledge of Private Pilot, Commercial Pilot, and Instrument Flight contained in an FAA Part 141 curriculum. (Specialized Knowledge)

2. Demonstrate flight proficiency skills in Private Pilot, Commercial Pilot, and Instrument Flight operations contained in an FAA Part 141 curriculum. (Specialized Knowledge)

3. Demonstrate strong quantitative literacy skills and the ability to think critically in a demanding environment. (Quantitative Literacy, Critical Thinking)

4. Evaluate and implement FAA standards for aviation safety, Aeronautical Decision Making, and accident reporting, including evaluating personal limitations. (Specialized Knowledge, Critical Thinking, Communication Fluency)

5. Implementation of the FAA required physiological limitations and best practices in the performance of professional pilot duties. (Specialized Knowledge)

Contact Information

CMU Tech
Office of Student Services, Kayenta Hall 102
2508 Blichmann Avenue
970.255.2670

Programs of Study
Associates

- Fixed Wing, Aviation Technology (AAS) (p. 172)
- Fixed Wing, Aviation Technology with Prior FAA Pilot License (AAS) (p. 174)

Program Expenses
Semester 1 - Private Pilot Certificate

Expense/ Requirement	Student Cost per Hour	Required Hours	Total Cost
Dual C#172	215.00	45.0	9675.00
Solo C#172	163.00	10.0	1,630.00
Ground Briefing	52.00	30.0	1,560.00
RB#TD2 Simulator	75.00	2.0	150.00
FAA Check Ride Flight	163.00	1.5	245.00
FAA Check Ride Examiner Fee			900.00
AVTN 102: Private Pilot Flight			**14,160.00**
FAA Curriculum, Foreflight Subscription, Student Kit			400.00
FAA Knowledge Exam			175.00
TSA Airport Badge			35.00
AVTN 101: Private Pilot Ground			**610.00**
Tuition and Fees (Credit Hours)	366.33	16.0	5,861.28
Textbooks and Other Course Materials*			1,300.00
Semester Total			**21,931.28**

Notes about Required Supplemental Online Course Materials and Private Pilot Kit:

The Private Pilot Part 141 online materials include:

- Ground Lessons
- Flight Lessons
- Maneuver Lessons
- Stage Exams
- End of Course Exam

The Private Pilot Kit includes:

- Private Pilot Textbook
- Private Pilot Maneuvers Manual
- Private pilot Syllabus
- Private Pilot Student Record Folder
- Private Pilot Airman Certification Standards (ACS)
- Private Pilot FAA Practical Test Study Guide
- Private Pilot FAA Airmen Knowledge Test Guide
- Student CSG Computer (E6B)
- PN-1 Navigation Plotter
- Pilot Logbook
- Student Flight Bag
- Private Pilot FAA Exam Package

Semester 2 - Instrument Reading

Expense/ Requirement	Student Cost per Hour	Required Hours	Total Cost
Dual C-172	215.00	45.0	9,675.00
Ground Briefing	52.00	30.0	1,560.00
RB-TD2 Simulator	75.00	5.0	375.00
FAA Check Ride Flight	163.00	2.0	326.00
FAA Check Ride Examiner Fee			900.00
AVTN 112: Instrument Flight			**12,836.00**
FAA Curriculum, Foreflight Subscription			195.00
FAA Knowledge Exam			175.00
AVTN 111: Instrument Ground			**370.00**
Tuition and Fees (Credit Hours)	366.33	17.0	6,227.61
Textbooks and Other Course Materials*			300.00
Semester Total			**19,733.61**

Notes about Required Supplemental Online Course Materials and Instrument/Commercial Kit:

The Instrument Pilot Part 141 online materials include:

- Ground Lessons
- Flight Lessons
- Stage Exams
- End of Course Exam

The Instrument/Commercial Kit includes:

- GFD Instrument/Commercial Textbook
- GFD Instrument/Commercial Syllabus
- Instrument Rating Airman Certification Standards (ACS)
- GFD Instrument/Commercial Record Folder
- Instrument Knowledge Test Guide

- Commercial Knowledge Test Guide
- IFR Three-Ring Kneeboard
- Student Flight Bag
- JeppShades
- Commercial Pilot ACS
- Instrument Pilot Exam Package
- Commercial Pilot Exam Package

Semester 3 - Commercial Pilot Certificate (60%)

Expense/ Requirement	Student Cost per Hour	Required Hours	Total Cost
Dual C-172	215.00	40.0	8,600.00
Solo C-172	163.00	20.0	3,260.00
Ground Briefing	52.00	15.0	780.00
AVTN 202: Commercial Pilot Flight I			**12,640.00**
FAA Curriculum, Foreflight Subscription			210.00
FAA Knowledge Exam			175.00
AVTN 201: Commercial Pilot Ground			**385.00**
Tuition and Fees (Credit Hours)	366.33	17.0	6,227.61
Textbooks and Other Course Materials*			300.00
Semester Total			**19,552.61**

Notes about Required Supplemental Commercial Online Course Materials:

The Commercial Pilot Part 141 online materials include:

- Ground Lessons
- Flight Lessons
- Maneuver Lessons
- Stage Exams
- End of Course Exam

Semester 4 - Commercial Pilot Certificate (40%)

Expense/ Requirement	Student Cost per Hour	Required Hours	Total Cost
Foreflight Subscription			80.00
Dual C-172	215.00	45.0	9,675.00
Solo C-172	163.00	15.0	3,225.00
Ground Briefing	52.00	20.0	1,040.00
FAA Check Ride Flight	163.00	1.5	245.00
FAA Check Ride Examiner Fee			900.00
AVTN 203: Commercial Pilot Flight II			**14,385.00**

Semester 4 - Flight Instructor Rating

Expense/ Requirement	Student Cost per Hour	Required Hours	Total Cost
Dual C-172	215.00	7.0	1,505.00
Dual Aircraft (TAA)	215.00	7.0	1,505.00
Ground Briefing	52.00	10.0	520.00
Flight Instructor Spin Training			500.00
FAA Check Ride Flight	163.00	1.5	245.00
FAA Check Ride Examiner Fee			1,400.00
AVTN 213: Flight Instructor Flight			**5,675.00**
FAA Knowledge Exams and Curriculum			460.00
AVTN 212: Flight Instructor Ground			**460.00**
Tuition and Fees (Credit Hours)	366.33	16.0	5,861.28
Textbooks and Other Course Materials*			300.00
Semester Total			**26,681.28**

Estimate of Total Program Cost

Expense/Requirement	Total Cost
Ground instruction, including testing fees	1,825.00
Flight Instruction, including FAA Check Rides and Examiner Fees*	59,696.00
Tuition and Fees**	24,177.78
Estimated Books and Course Materials***	2,200.00
TOTAL	**87,898.78**

Notes

*This is curriculum required flight hours for all students. If hours exceed those indicated here, the student is responsible for additional costs.

**The provided tuition rates are based on in-state Tuition and Fees for COF-eligible Colorado residents. Higher rates apply for non-COF-eligible students.

***The provided costs for textbooks and course materials are estimates only. Textbooks and course materials are not included and must be purchased by students.

Fixed Wing, Aviation Technology (AAS)

Degree: Associate of Applied Science
Major: Aviation Technology
Emphasis: Fixed Wing
Program Code: 1378

The Aviation Technology program with a Fixed Wing emphasis will provide technical certificate for college credit as identified in the Colorado Mesa University mission established by the Colorado Legislature. The goals of the program are: prepare the students for FAA Certification as a Commercial Pilot with an Instrument Rating, and as a Certified Flight Instructor. In addition, the program offers opportunities to enhance knowledge and expertise in the field of aviation by improving technical skills. Successful completion of the Aviation Technology program will also help prepare AAS students for BS programs in Aviation Technology.

Additional requirements for admission to this program:

1. Must complete all Developmental Education requirements prior to starting the program.
2. Submit a copy of your birth certificate to establish U.S Citizenship.
3. Complete a flight physical exam with an FAA-designated Aviation Medical Examiner. Recommend a second class medical certificate minimum. To help locate a qualified doctor go to https://www.faa.gov/pilots/amelocator for a list by city and state.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Acquire substantial aeronautical knowledge of Private Pilot, Commercial Pilot and Instrument Flight contained in a FAA Part 141 curriculum. (Specialized Knowledge)
2. Demonstrate flight proficiency skills in Private Pilot, Commercial Pilot and Instrument Flight operations contained in a FAA Part 141 curriculum. (Specialized Knowledge)
3. Demonstrate strong quantitative literacy skills and the ability to think critically in a demanding environment. (Quantitative Literacy, Critical Thinking)
4. Evaluate and implement FAA standards for aviation safety, Aeronautical Decision Making, and accident reporting, including evaluating personal limitations. (Specialized Knowledge, Critical Thinking, Communication Fluency)\ \
5. Implementation of the FAA required physiological limitations and best practices in the performance of professional pilot duties. (Specialized Knowledge)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Specific to this degree:

- 66 semester hours total for the AAS, Aviation Technology - Fixed Wing.
- A minimum of 40 semester hours must be taken at CMU in no fewer than three semesters.
- A cumulative grade point average of 2.5 or higher must be maintained for all courses taken.

Essential Learning Requirements

(16 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for

your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
Communication		
ENGL 111	English Composition I-GTCO1	3
Select one of the following courses:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communication	
SPCH 102	Speechmaking	
Mathematics		
MATH 108	Technical Mathematics	4
Other Essential Learning Core Courses		
GEOL 103	Weather and Climate-GTSC2	3
PSYC 150	General Psychology-GTSS3	3
Total Semester Credit Hours		**16**

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Total Semester Credit Hours		**2**

Program Specific Degree Requirements

(48 semester hours, must be completed with a grade of "C" or better. A cumulative grade point average of 2.5 or higher must be maintained for all courses taken.)

Code	Title	Semester Credit Hours
Core Courses		
AVTN 101	Private Pilot Ground School	4
AVTN 102	Private Pilot Flight (46.5 hrs) [1]	4
AVTN 111	Instrument Pilot Ground School	4
AVTN 112	Instrument Pilot Flight (39 hrs) [1]	4
AVTN 105	Aviation Meteorology	4
AVTN 140	Aircraft Systems	4
AVTN 206	Crew Resource Management	1
AVTN 201	Commercial Pilot Ground School	2
AVTN 202	Commercial Pilot Flight I (53 hrs) [1]	4
AVTN 203	Commercial Pilot Flight II (68.5 hrs) [1]	3
AVTN 218	ATC Procedures	4
AVTN 205	Mountain Flying Ground School	1
AVTN 245	Aviation Safety	2
AVTN 247	Aviation Physiology	2
Track Courses		
Complete all courses in one of the following tracks		5
Track 1 - CFI:		
AVTN 211	Fundamentals of Instruction	
AVTN 212	Flight Instructor Ground School	
AVTN 213	Flight Instructor Flight (8.5 hrs) [1]	
Track 2 - Multi-Engine:		
AVTN 207	Multi-Engine Ground School	
AVTN 208	Multi-Engine Flight (12 hrs) [1]	
Elective Hours (3)		
Total Semester Credit Hours		**48**

[1] Hours in parenthesis following the course title indicate required flight hours.

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
AVTN 101	Private Pilot Ground School	4
AVTN 102	Private Pilot Flight	4
MATH 108	Technical Mathematics	4
GEOL 103	Weather and Climate-GTSC2	3
KINE 100	Health and Wellness	1
	Semester Credit Hours	**16**
Spring Semester		
AVTN 111	Instrument Pilot Ground School	4
AVTN 112	Instrument Pilot Flight	4
AVTN 105	Aviation Meteorology	4
AVTN 140	Aircraft Systems	4
AVTN 206	Crew Resource Management	1
	Semester Credit Hours	**17**
Second Year		
Fall Semester		
AVTN 201	Commercial Pilot Ground School	2
AVTN 202	Commercial Pilot Flight I	4
AVTN 218	ATC Procedures	4
ENGL 111	English Composition I-GTCO1	3
PSYC 150	General Psychology-GTSS3	3
KINA Activity Course		1
	Semester Credit Hours	**17**
Spring Semester		
AVTN 203	Commercial Pilot Flight II	3
AVTN 205	Mountain Flying Ground School	1
AVTN 245	Aviation Safety	2
AVTN 247	Aviation Physiology	2
SPCH 101	Interpersonal Communication	3
Complete Track 1 CFI or Track 2 Multi-Engine (Both 5 credits) [1]		
Track 1 CFI		
AVTN 211	Fundamentals of Instruction	2
AVTN 212	Flight Instructor Ground School	2
AVTN 213	Flight Instructor Flight	1
	Semester Credit Hours	**16**
	Total Semester Credit Hours	**66**

[1] Track 2 (5 credits total) - Multi-Engine courses: AVTN 207 - Multi-Engine Ground School (1 credit), AVTN 209 - Multi-Engine Flight (1 credit), and Elective Hours (3 credits).

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Fixed Wing, Aviation Technology with Prior FAA Pilot License (AAS)

Overview

Degree: Associate of Applied Science
Major: Aviation Technology
Emphasis: Fixed Wing, with Prior FAA Pilot License
Program Code: 1403

Goals of the Aviation Technology program with a Fixed Wing emphasis are to prepare students for FAA Certification as a Commercial Pilot with an Instrument Rating and as a Certified Flight Instructor. In addition, the program offers opportunities to enhance knowledge and expertise in the field of aviation by improving technical skills. Successful completion of the Aviation Technology program will also help prepare AAS students for BS programs in Aviation Technology.

Additional requirements for admission to this program:

1. A secondary application must be submitted to the Aviation Technology Director prior to acceptance in the program.
2. Must hold at least one or any combination of the following: a current FAA private pilot license, a current FAA commercial pilot license, and/or a current FAA instrument pilot license. A copy of the current FAA license(s) must be housed in the Registrar's Office as part of the student's permanent record.
3. A student may earn only the Aviation Technology: Fixed Wing with Prior FAA Pilot License AAS or the Aviation Technology: Fixed Wing AAS.
4. Students who do not complete the Instrument Rating and Commercial Pilot Certificate at an FAA approved Part 141 school will not qualify for Restricted-ATP certification.
5. Must complete all Developmental Education requirements prior to starting the program.
6. Submit a copy of birth certificate to establish U.S. Citizenship.
7. Complete a flight physical exam with an FAA-designated Aviation Medical Examiner. Recommend a second-class medical certificate at a minimum. To help locate a qualified doctor go to https://www.faa.gov/pilots/amelocator for a list by city and state.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Acquire substantial aeronautical knowledge of Private Pilot, Commercial Pilot and Instrument Flight contained in a FAA Part 141 curriculum. (Specialized Knowledge, Information Literacy)
2. Demonstrate flight proficiency skills in Private Pilot, Commercial Pilot and Instrument Flight operations contained in a FAA Part 141 curriculum. (Specialized Knowledge)
3. Demonstrate strong quantitative literacy skills and the ability to think critically in a demanding environment. (Quantitative Literacy, Critical Thinking)
4. Evaluate and implement FAA standards for aviation safety, Aeronautical Decision Making, and accident reporting, including evaluating personal limitations. (Specialized Knowledge, Critical Thinking, Communication Fluency)\ \
5. Implementation of the FAA required physiological limitations and best practices in the performance of professional pilot duties. (Specialized Knowledge, Personal and Social Responsibility)

Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.

- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this degree:

- 66 semester hours total for the AAS, Aviation Technology: Fixed Wing with Prior FAA Pilot License.
- Must hold at least one or any combination of the following: a current FAA private pilot license, a current FAA commercial pilot license, and/or a current FAA instrument pilot rating. A copy of the current FAA license(s) must be housed in the Registrar's Office as part of the student's permanent record.
- Credit granted for prior FAA licensures applies only to this Aviation Technology program.
- A minimum of 40 semester hours must be taken at CMU in no fewer than three semesters.
- A cumulative grade point average of 2.5 or higher must be maintained for all courses taken.

Essential Learning Requirements

(16 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
Communication		
ENGL 111	English Composition I-GTCO1	3
Select one of the following courses:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communication	
SPCH 102	Speechmaking	
Mathematics		
MATH 108	Technical Mathematics	4
Other Essential Learning Core Courses		
GEOL 103	Weather and Climate-GTSC2	3
PSYC 150	General Psychology-GTSS3	3
Total Semester Credit Hours		**16**

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Total Semester Credit Hours		**2**

Program Specific Degree Requirements

(48 semester hours, must be completed with a grade of "C" or better. A cumulative grade point average of 2.5 or higher must be maintained for all courses taken.)

Code	Title	Semester Credit Hours
Pilot Certification Courses - Each Category Must Be Satisfied to Earn the Degree		
Private Pilot - Complete one of the following:		*8*
FAA Private Pilot License [1]		
AVTN 101 & AVTN 102	Private Pilot Ground School and Private Pilot Flight [2]	
Instrument Rating - Complete one of the following:		*8*
FAA Instrument Rating [1, 5]		

AVTN 111 & AVTN 112	Instrument Pilot Ground School and Instrument Pilot Flight [3]	
Commercial Pilot - Complete one of the following:		9
FAA Commercial Pilot License [1, 5]		
AVTN 201 & AVTN 202 & AVTN 203	Commercial Pilot Ground School and Commercial Pilot Flight I and Commercial Pilot Flight II [4]	
Required Courses		
AVTN 105	Aviation Meteorology	4
AVTN 140	Aircraft Systems	4
AVTN 206	Crew Resource Management	1
AVTN 218	ATC Procedures	4
AVTN 205	Mountain Flying Ground School	1
AVTN 245	Aviation Safety	2
AVTN 247	Aviation Physiology	2
Track Courses		
Complete one of the following tracks		5
Track 1: Flight Instructor		
AVTN 211	Fundamentals of Instruction	
AVTN 212	Flight Instructor Ground School	
AVTN 213	Flight Instructor Flight (8.5 hrs) [6]	
Track 2: Multi-Engine Pilot		
AVTN 207	Multi-Engine Ground School	
AVTN 208	Multi-Engine Flight (12 hrs) [6]	
Elective Hours (3)		

1. Credit granted for prior FAA licensures applies only to the Aviation Technology program.
2. AVTN 102 has 46.5 required flight hours.
3. AVTN 112 has 39 required flight hours.
4. AVTN 202 has 53 required flight hours. AVTN 203 has 68.5 required flight hours.
5. Students who do not complete the Instrument Rating and Commercial Pilot Certificate at an FAA approved Part 141 school will not qualify for Restricted-ATP certification.
6. Hours in parenthesis following the course title indicate required flight hours.

Suggested Course Plan

(Students who do not complete the Instrument Rating and Commercial Pilot Certificate at an FAA approved Part 141 school will not qualify for Restricted-ATP certification.)

First Year		
Fall Semester		**Semester Credit Hours**
AVTN 101	Private Pilot Ground School	4
AVTN 102	Private Pilot Flight	4
MATH 108	Technical Mathematics	4
GEOL 103	Weather and Climate-GTSC2	3
KINE 100	Health and Wellness	1
	Semester Credit Hours	**16**
Spring Semester		
AVTN 111	Instrument Pilot Ground School	4
AVTN 112	Instrument Pilot Flight	4
AVTN 105	Aviation Meteorology	4
AVTN 140	Aircraft Systems	4
AVTN 206	Crew Resource Management	1
	Semester Credit Hours	**17**
Second Year		
Fall Semester		
AVTN 201	Commercial Pilot Ground School	2
AVTN 202	Commercial Pilot Flight I	4
AVTN 218	ATC Procedures	4
ENGL 111	English Composition I-GTCO1	3
PSYC 150	General Psychology-GTSS3	3
KINA Activity Course		1
	Semester Credit Hours	**17**
Spring Semester		
AVTN 203	Commercial Pilot Flight II	3
AVTN 205	Mountain Flying Ground School	1
AVTN 245	Aviation Safety	2
AVTN 247	Aviation Physiology	2
SPCH 101	Interpersonal Communication	3
Complete one of the following tracks:		5
Track 1: Flight Instructor [1]		
Track 2: Multi-Engine Pilot [2]		
	Semester Credit Hours	**16**
	Total Semester Credit Hours	**66**

1. Track 1: Flight Instructor requires AVTN 211 (2 credits), AVTN 212 (2 credits), and AVTN 213 (1 credit).
2. Track 2: Multi-Engine Pilot requires AVTN 207 (1 credit), AVTN 208 (1 credit), and Elective Hours (3 credits).

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.

- Submit the “Intent to Graduate” form to the Registrar’s Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's “Intent to Graduate” does not automatically move to a later graduation date.

Baking and Pastry

Program Description

This program will prepare students for employment in the field of baking and the art of pastries. The Associate of Applied Science program will develop the students’ skills and understanding in the production of chocolates, confections, pastries, ice creams and frozen desserts, yeast products, quick breads, sculpted items, sugar work, use of fruits and international desserts. Business and management courses to be taken include nutrition, purchasing, supervision, and business information technology.

Upon completion of the program, students will be prepared for entry-level positions in the broad and expanding hospitality industry, as well as prepared to continue for advanced study in the Bachelor of Applied Science in Hospitality Management.

Contact Information

CMU Tech
Office of Student Services, Kayenta Hall 102
2508 Blichmann Avenue
970.255.2670

Programs of Study

Associates

- Baking and Pastry (AAS) (p. 177)

Certificates

- Bakeshop Production (Technical Certificate) (p. 179)

Baking and Pastry (AAS)

Degree: Associate of Applied Science
Major: Baking and Pastry
Major Code: 1340

This program will prepare students for employment in the field of baking and the art of pastries. The Associate of Applied Science program will develop the students’ skills and understanding in the production of chocolates, confections, pastries, ice creams and frozen desserts, yeast products, quick breads, sculpted items, sugar work, use of fruits and international desserts. Business and management courses to be taken include nutrition, purchasing, supervision, and business information technology.

Upon completion of the program, students will be prepared for an entry-level position in the broad and expanding hospitality/industry as well as prepared to continue for advanced study in the Bachelor of Applied Science in Hospitality Management.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Apply food safety concepts to demonstrate personal hygiene guidelines, consumer safety, and sanitation procedures for preparation, storage, and service of food. (Applied Learning)
2. Apply mathematical concepts and practices to the field of baking and pastry as a basis for accurate ingredient measurements, high altitude adjustment, and formula yield conversion. (Quantitative Fluency)
3. Apply appropriate vocabulary used in the field of baking and pastries for equipment, tools, ingredients and menu items. (Specialized Knowledge/Communication Fluency)
4. Identify, formulate and assess a variety of baked products. When assessing, identify faults and likely causes in baked goods. (Specialized Knowledge/Critical Thinking)
5. Reflect on and respond to ethical issues relating to preparing baked goods for consumers with allergens or dietary restrictions based on health, religion, and/or culture. (Personal and Social Responsibility)
6. Identify, utilize and cite various sources of information in a baking research project.(Information Literacy)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this degree:

- 62 semester hours total for the AAS, Baking and Pastry.

Essential Learning Requirements

(15 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
Communication		
ENGL 111	English Composition I-GTCO1	3
Select one of the following courses:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communication	
SPCH 102	Speechmaking	
Mathematics		
MATH 107	Career Math (or higher)	3
Other Essential Learning Core Courses		
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
Total Semester Credit Hours		**15**

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Total Semester Credit Hours		**2**

Program Specific Degree Requirements

(45 semester hours, must earn a grade of "C" or better in each course.)

- Additional expenses - Students in Baking and Pastry may be required to purchase or have cooking/baking tools and appropriate chef's clothing. This does not include required textbooks. These costs vary with student needs and brand or quality of tools purchased.

Code	Title	Semester Credit Hours
Core Classes		
CUAR 100	Culinary Program Fundamentals	3
CUAR 101	Food Safety & Sanitation	2
CUAR 125	Introduction to Foods	3
CUAR 145	Introduction to Baking	3

CUAR 150	Baking: Decorating and Presentation	3
CUAR 151	Intermediate Bread Preparation	3
CUAR 152	Individual Fancy Desserts Production	3
CUAR 153	Confectionaries and Petit Fours	3
CUAR 156	Nutrition for the Hospitality Professional	3
CUAR 160	Cake Decorating	4
CUAR 163	Advanced Wedding Cakes	3
CUAR 236	Advanced Baking	3
CUAR 255	Supervision in the Hospitality Industry	3
CUAR 262	Purchasing for the Hospitality Industry	3
CUAR 269	Dietary Baking	3
Total Semester Credit Hours		**45**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
CUAR 100	Culinary Program Fundamentals (1st Mod)	3
CUAR 101	Food Safety & Sanitation (1st Mod)	2
CUAR 125	Introduction to Foods (2nd Mod)	3
CUAR 145	Introduction to Baking (2nd Mod)	3
ENGL 111	English Composition I-GTCO1	3
MATH 107	Career Math	3
	Semester Credit Hours	**17**
Spring Semester		
CUAR 150	Baking: Decorating and Presentation (1st Mod)	3
CUAR 151	Intermediate Bread Preparation (1st Mod)	3
CUAR 152	Individual Fancy Desserts Production (2nd Mod)	3
ENGL 112 or SPCH 101 or SPCH 102	English Composition II-GTCO2 or Interpersonal Communication or Speechmaking	3
Essential Learning - Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
CUAR 153	Confectionaries and Petit Fours (2nd Mod)	3
CUAR 156	Nutrition for the Hospitality Professional	3
CUAR 160	Cake Decorating (1st Mod)	4
CUAR 262	Purchasing for the Hospitality Industry	3
CUAR 269	Dietary Baking (1st Mod)	3
	Semester Credit Hours	**16**
Spring Semester		
CUAR 163	Advanced Wedding Cakes (1st Mod)	3
CUAR 236	Advanced Baking (2nd Mod)	3
CUAR 255	Supervision in the Hospitality Industry	3
Essential Learning - Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
KINE 100	Health and Wellness	1
KINA 1xx Activity Course		1
	Semester Credit Hours	**14**
	Total Semester Credit Hours	**62**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Bakeshop Production (Technical Certificate)

Award: Technical Certificate
Program of Study: Bakeshop Production
Major Code: 1141

This program will prepare students for employment in the field of baking and the art of pastries. The certificate program will develop the students' skills and understanding in the production of pastries, yeast products, quick breads, use of fruits and international desserts. Students completing the certificate program could find employment in the following areas: baker, baking assistant, journeyman baker, cake decorator, or pastry cook, and are prepared to continue for advanced study in the Associates of Applied Science in Baking and Pastry, and Bachelors in Hospitality Management.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these

campus#wide student learning outcomes, graduates of this major will be able to:

1. Apply food safety concepts to demonstrate personal hygiene guidelines, consumer safety, and sanitation procedures for preparation, storage, and service of food. (Applied Learning)
2. Apply mathematical concepts and practices to the field of baking and pastry as a basis for accurate ingredient measurements, high altitude adjustment, and formula yield conversion. (Quantitative Fluency)
3. Identify, formulate and assess a variety of baked products. (Specialized Knowledge)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(17 semester hours, must earn a grade of "C" or better in each course.)

Code	Title	Semester Credit Hours
Required Courses		
CUAR 100	Culinary Program Fundamentals	3
CUAR 101	Food Safety & Sanitation	2
CUAR 125	Introduction to Foods	3
CUAR 145	Introduction to Baking	3
CUAR 150	Baking: Decorating and Presentation	3
CUAR 151	Intermediate Bread Preparation	3
Total Semester Credit Hours		**17**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
CUAR 100	Culinary Program Fundamentals (1st Mod)	3
CUAR 101	Food Safety & Sanitation (1st Mod)	2
CUAR 125	Introduction to Foods (2nd Mod)	3
CUAR 145	Introduction to Baking (2nd Mod)	3
	Semester Credit Hours	**11**
Spring Semester		
CUAR 150	Baking: Decorating and Presentation (1st Mod)	3
CUAR 151	Intermediate Bread Preparation (1st Mod)	3
	Semester Credit Hours	**6**
	Total Semester Credit Hours	**17**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the “Intent to Graduate” form to the Registrar’s Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's “Intent to Graduate” does not automatically move to a later graduation date.

Biological Sciences

Program Description

The Bachelor of Science degree with a biological science concentration provides a broad background in the biological sciences. Students can choose biology courses from a variety of areas: cellular, developmental and molecular biology; anatomical and physiological biology; organismal biology; and ecology, evolution and systematics. The biology concentration also offers outdoor field courses and laboratories. Biology faculty have a diversity of specialties including cell signaling, genetics, microbiology, small mammal biology, fisheries, plant pathology, herpetology, human/animal physiology, evolutionary developmental biology, human evolution, plant evolution, bioinformatics, and tropical ecology. Graduates of the program pursue careers in the medical field, ecology, botany, wildlife biology, cell biology or biotechnology, among the many career options available with a biology degree from Colorado Mesa University.

Students wanting to obtain their teacher certification complete a concentration in secondary education leading to teacher licensure. Graduates of the program can teach in the state of Colorado or use their teaching expertise in other careers. After completing foundation sciences classes in biology, chemistry, physics and geology, students choose 10 hours of upper level biology course work, in consultation with their advisor. Students must be admitted into the teaching program to complete the licensure requirements. For more information about these requirements, contact the Center for Teacher Education.

Contact Information

Department of Biological Sciences
Wubben Science 232
970.248.1993

Programs of Study

Associates

- Biology, Liberal Arts (AS) (p. 196)

Bachelors/Minors

- Biology (Minor) (p. 198)
- Biology, Biological Sciences (BS) (p. 181)
- Cellular, Molecular, and Developmental Biology, Biological Sciences (BS) (p. 185)
- Ecology, Evolution, and Organismal Biology, Biological Sciences (BS) (p. 189)
- Education: Secondary Education, Biological Sciences (BS) (p. 192)

Biology, Biological Sciences (BS)

Degree: Bachelor of Science
Major: Biological Sciences
Concentration: Biology
Program Code: 3410

The Bachelor of Science degree with a Biological Science major provides a broad background in the biological sciences. Students choose biology courses from four areas: cell, developmental, and molecular biology; anatomical and physiological biology; organismal biology; and ecology, evolution, and systematics. Students wishing to obtain

teacher certification complete a concentration in Teacher Licensure. The Biology Concentration also offers field courses on tropical ecosystems in Ecuador. Graduates of our program pursue careers in the medical field, plant pathology, wildlife biology, cell biology or biotechnology, among just a few of the career options available with a Biology degree from Colorado Mesa University.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Demonstrate a broad, comprehensive knowledge of the main areas of biology (including evolution, diversity, ecology, cell biology, and genetics) and the ability to apply this knowledge to address new questions. (Specialized knowledge)
2. Collect and analyze quantitative data and interpret quantitative data presented in primary scientific literature. (Quantitative Fluency/ Applied Learning)
3. Utilize science as a way of thinking and problem solving, and make key observations, ask questions, formulate hypotheses, design experiments, collect data, draw logical conclusions, and explain and defend those conclusions to others. (Critical Thinking)
4. Demonstrate effective biological communication skills, both in writing and orally. (Communication fluency)
5. Evaluate and defend contrasting viewpoints related to ethical, social, civic, and/or environmental challenges in the field of biological sciences. (Personal Social Responsibility)
6. Critically search, evaluate, and appropriately apply information from primary scientific literature. (Information Literacy)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/ certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 113	College Algebra-GTMA1 [2]	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [3]		
CHEM 131 & 131L	General Chemistry I-GTSC1 and General Chemistry Laboratory I-GTSC1	4
CHEM 132 & 132L	General Chemistry II-GTSC1 and General Chemistry Laboratory II-GTSC1	3
Total Semester Credit Hours		**31**

[1] Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

[2] This is a 4 credit course. 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit. Also, professional schools (medical, veterinary, dental) may require one semester or two semesters of calculus. MATH 151 and MATH 152 may be used to fulfill the Mathematics requirement. If Math higher than MATH 113 is needed, an ALEKS Math Placement Test will determine the appropriate Math course.

[3] CHEM 131 & CHEM 131L and CHEM 132 & CHEM 132L are 5 credit hours each for a total of 10 semester hours. 7 credit hours will apply to Essential Learning Natural Sciences and 3 credit hours will apply to electives.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

Foundation Courses

(7 semester hours, must pass all courses with a grade of "C" or higher. Foundation courses should be completed by the end of the sophomore year.)

Code	Title	Semester Credit Hours
BIOL 105 & 105L	Attributes of Living Systems-GTSC1 and Attributes of Living Systems Laboratory-GTSC1	4
Select one of the following:		3
MATH 131	Applied Calculus-GTMA1 [2]	
STAT 200	Probability and Statistics-GTMA1	
Total Semester Credit Hours		**7**

[1] A higher-level subject may be taken in the same category with advisor approval.

[2] If MATH 131 is taken, 3 credits apply to Foundation and 1 credit applies to Electives.

Program Specific Degree Requirements

(48 semester hours, must pass all courses with a grade of “C” or higher.)

- Topics courses (BIOL 196/BIOL 296/BIOL 396/BIOL 496) may not be used as Additional Biology Courses but must be used for elective credit.

Code	Title	Semester Credit Hours
Core Courses		
BIOL 208 & 208L	Fundamentals of Ecology and Evolution and Fundamentals of Ecology and Evolution Laboratory	4
BIOL 301 & 301L	Principles of Genetics and Principles of Genetics Laboratory	4
BIOL 483	Senior Thesis	2
Required Related Study Area		
BIOL 106 & 106L	Principles of Animal Biology and Principles of Animal Biology Laboratory	4
BIOL 107 & 107L	Principles of Plant Biology and Principles of Plant Biology Laboratory	4
PHYS 111 & 111L	General Physics I-GTSC1 and General Physics I Laboratory-GTSC1 [1]	5
PHYS 112 & 112L	General Physics II-GTSC1 and General Physics II Laboratory-GTSC1 [1]	5
Additional Biology Courses		
Select 20 semester hours from at least three of the following four categories. [2]		20
Category 1: Cellular, Developmental, and Molecular		
BIOL 302	Cellular Biology	
BIOL 310 & 310L	Developmental Biology and Developmental Biology Laboratory [3]	
BIOL 343	Immunology	
BIOL 344 & 344L	Forensic Molecular Biology and Forensic Molecular Biology Laboratory	
BIOL 371L	Laboratory Investigations in Cellular and Molecular Biology	
BIOL 425	Molecular Genetics	
BIOL 442	Pharmacology	
CHEM 315	Biochemistry I	
CHEM 317L	Biochemistry Laboratory	
Category 2: Organismal		
BIOL 250 & 250L	Introduction to Microbiology-GTSC1 and Introduction to Microbiology Laboratory-GTSC1	
BIOL 316 & 316L	Animal Behavior and Animal Behavior Laboratory	
BIOL 322 & 322L	Plant Identification and Plant Identification Laboratory	
BIOL 331 & 331L	Insect Biology and Insect Biology Laboratory	
BIOL 336 & 336L	Fish Biology and Fish Biology Laboratory	
BIOL 338	Small Mammal Biology	
BIOL 350 & 350L	Microbiology and Microbiology Laboratory	
BIOL 411 & 411L	Mammalogy and Mammalogy Laboratory	
BIOL 412 & 412L	Ornithology and Ornithology Laboratory	
BIOL 413 & 413L	Herpetology and Herpetology Laboratory	

BIOL 431 & 431L	Animal Parasitology and Animal Parasitology Laboratory
BIOL 450 & 450L	Mycology and Mycology Laboratory
Category 3: Anatomical and Physiological	
BIOL 209 & 209L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Laboratory
BIOL 210 & 210L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Laboratory
BIOL 241	Pathophysiology
BIOL 351 & 351L	Ecological Physiology and Ecological Physiology Laboratory
BIOL 352 & 352L	Human Physiology and Human Physiology Laboratory
BIOL 409 & 409L	Gross Human Anatomy and Gross Human Anatomy Laboratory
BIOL 410 & 410L	Human Osteology and Human Osteology Laboratory
BIOL 427 & 427L	Plant Anatomy and Physiology and Plant Anatomy and Physiology Laboratory
BIOL 441	Endocrinology
Category 4: Ecology, Evolution, and Systematics	
BIOL 315	Epidemiology
BIOL 320	Plant Systematics
BIOL 321 & 321L	Taxonomy of Grasses and Taxonomy of Grasses Laboratory
BIOL 339	Winter Ecology
BIOL 403	Evolution
BIOL 405 & 405L	Advanced Ecological Methods and Advanced Ecological Methods Laboratory
BIOL 406	Plant-Animal Interactions
BIOL 407	Tropical Field Biology
BIOL 408	Desert Ecology
BIOL 414 & 414L	Freshwater Ecology and Freshwater Ecology Laboratory
BIOL 415	Tropical Ecosystems
BIOL 418 & 418L	Wildlife Management and Wildlife Management Laboratory
BIOL 419 & 419L	Fisheries Management and Fisheries Management Laboratory
BIOL 420	Conservation Biology
Total Semester Credit Hours	**48**

[1] A higher-level subject may be taken in the same category with advisor approval.

[2] At least 50% must be at the 300-Level or above. At least one of the following must be included: BIOL 302, BIOL 351/BIOL 351L, BIOL 352/BIOL 352L, or BIOL 427/BIOL 427L.

[3] BIOL 310L is an optional lab for BIOL 310. If BIOL 310 is taken without the lab, it will count toward the degree.

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours, including 40 upper-division credit hours. 28 semester hours; up to 24 hours of upper-division may be needed. It is strongly recommended that all electives be upper-division. Professional schools (medical, veterinary, dental) may require one or two semesters of organic chemistry, which may be taken to fulfill part of electives.

Code	Title	Semester Credit Hours
MATH 113	College Algebra-GTMA1	1
CHEM 131 & 131L	General Chemistry I-GTSC1 and General Chemistry Laboratory I-GTSC1	1
CHEM 132 & 132L	General Chemistry II-GTSC1 and General Chemistry Laboratory II-GTSC1	2
Select additional electives [1]		24
Total Semester Credit Hours		**28**

[1] May need additional elective hours to meet the minimum upper-level credit hours for degree. Meet with advisor to plan general elective hour needs.

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
BIOL 105 & 105L	Attributes of Living Systems-GTSC1 and Attributes of Living Systems Laboratory-GTSC1	4
CHEM 131 & 131L	General Chemistry I-GTSC1 and General Chemistry Laboratory I-GTSC1	5
MATH 113	College Algebra-GTMA1	4
KINE 100	Health and Wellness	1
KINA Activity		1
	Semester Credit Hours	**15**
Spring Semester		
BIOL 106 & 106L	Principles of Animal Biology and Principles of Animal Biology Laboratory	4
CHEM 132 & 132L	General Chemistry II-GTSC1 and General Chemistry Laboratory II-GTSC1	5
STAT 200 or MATH 131	Probability and Statistics-GTMA1 or Applied Calculus-GTMA1	3-4
Essential Learning - Fine Arts		3
	Semester Credit Hours	**15-16**
Second Year		
Fall Semester		
BIOL 107 & 107L	Principles of Plant Biology and Principles of Plant Biology Laboratory	4
PHYS 111 & 111L	General Physics I-GTSC1 and General Physics I Laboratory-GTSC1	5
ENGL 111	English Composition I-GTCO1	3
Essential Learning - Social and Behavioral Sciences		3
	Semester Credit Hours	**15**
Spring Semester		
BIOL 208 & 208L	Fundamentals of Ecology and Evolution and Fundamentals of Ecology and Evolution Laboratory	4
PHYS 112 & 112L	General Physics II-GTSC1 and General Physics II Laboratory-GTSC1	5
ENGL 112	English Composition II-GTCO2	3
Essential Learning - History		3
	Semester Credit Hours	**15**
Third Year		
Fall Semester		
ESSL 290	Maverick Milestone	3

ESSL 200	Essential Speech	1
BIOL 301 & 301L	Principles of Genetics and Principles of Genetics Laboratory	4
Additional Biology Courses (2 courses)		7
	Semester Credit Hours	**15**
Spring Semester		
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - Humanities		3
Additional Biology Courses (2 courses)		7
Elective		3
	Semester Credit Hours	**16**
Fourth Year		
Fall Semester		
Additional Biology Courses (2 courses)		6
Electives (3 courses)		9
	Semester Credit Hours	**15**
Spring Semester		
BIOL 483	Senior Thesis	2
Electives (3-4 courses) [1]		12
	Semester Credit Hours	**14**
	Total Semester Credit Hours	**120-121**

[1] Less elective hours may be needed. Adequate elective hours must be taken to bring total semester hours to 120, including 40 upper-division hours.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Cellular, Molecular, and Developmental Biology, Biological Sciences (BS)

Degree: Bachelor of Science
Major: Biological Sciences
Concentration: Cellular, Molecular, and Developmental Biology
Program Code: 3414

The Bachelor of Science degree with a Biological Sciences major provides a broad background in the biological sciences. Students choose biology courses from four categories: cellular, molecular, and developmental biology; anatomical and physiological biology; organismal biology; and ecology, evolution, and systematics. The Cellular, Molecular, and Developmental Biology Concentration will provide a solid background in cell and molecular biology, genetics, and biochemistry. The concentration prepares graduates of this program for careers in the medical field, cell biology, and biotechnology, which are just a few of the career options available.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Demonstrate a broad, comprehensive knowledge of the main areas of biology (including evolution, diversity, ecology, cell biology, and genetics) and the ability to apply this knowledge to address new questions. (Specialized knowledge)
2. Collect and analyze quantitative data and interpret quantitative data presented in primary scientific literature. (Quantitative Fluency/ Applied Learning)
3. Utilize science as a way of thinking and problem solving and make key observations, ask questions, formulate hypotheses, design experiments, collect data, draw logical conclusions, and explain and defend those conclusions to others. (Critical Thinking)
4. Demonstrate effective biological communication skills, both in writing and orally. (Communication fluency)
5. Evaluate and defend contrasting viewpoints related to ethical, social, civic, and/or environmental challenges in the field of biological sciences. Personal Social Responsibility)
6. Critically search, evaluate, and appropriately apply information from primary scientific literature.(Information Literacy)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course

sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 151	Calculus I-GTMA1 [2]	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [3]		
CHEM 131 & 131L	General Chemistry I-GTSC1 and General Chemistry Laboratory I-GTSC1	4
CHEM 132 & 132L	General Chemistry II-GTSC1 and General Chemistry Laboratory II-GTSC1	3
Total Semester Credit Hours		**31**

1 Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

2 This is a 5 credit course. 3 credits apply to the Essential Learning requirements and 2 credits apply to electives. A lower level Math course may be necessary before registering for MATH 151. An ALEKS Math Placement test will determine the appropriate Math course.

3 CHEM 131/CHEM 131L and CHEM 132/CHEM 132L are 5 credit hours each for a total of 10 semester hours. 7 credits apply to the Essential Learning Natural Science requirement and 3 credits apply to electives.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone		
ESSL 200	Essential Speech	1
ESSL 290	Maverick Milestone	3
Total Semester Credit Hours		**6**

Foundation Courses

(17-19 semester hours, must pass each courses with a grade of "C" or higher. Foundation courses should be completed by the end of the sophomore year.)

Code	Title	Semester Credit Hours
BIOL 105 & 105L	Attributes of Living Systems-GTSC1 and Attributes of Living Systems Laboratory-GTSC1	4
PHYS 111 & 111L	General Physics I-GTSC1 and General Physics I Laboratory-GTSC1 [1]	5
PHYS 112 & 112L	General Physics II-GTSC1 and General Physics II Laboratory-GTSC1 [1]	5
STAT 200 or MATH 152	Probability and Statistics-GTMA1 Calculus II	3-5
Total Semester Credit Hours		**17-19**

[1] A higher-level subject can be taken in the same category with advisor approval.

Program Specific Degree Requirements

(53 semester hours, must pass each course with a grade of "C" or higher.)

- Topics courses (BIOL 196/BIOL 296/BIOL 396/BIOL 496) as well as research courses (BIOL 387/BIOL 487), internships (BIOL 499), teaching practicum (BIOL 493), and independent study (BIOL 495) may not be used as Additional Biology Courses but must be used for elective credit.

Code	Title	Semester Credit Hours
Core Courses		
BIOL 208 & 208L	Fundamentals of Ecology and Evolution and Fundamentals of Ecology and Evolution Laboratory	4
BIOL 301 & 301L	Principles of Genetics and Principles of Genetics Laboratory	4
BIOL 483	Senior Thesis	2
Required Related Study Area		
BIOL 108 & 108L	Diversity of Organisms-GTSC1 and Diversity of Organisms Laboratory-GTSC1	4
BIOL 302	Cellular Biology	3
BIOL 310	Developmental Biology	3
BIOL 371L	Laboratory Investigations in Cellular and Molecular Biology	3
BIOL 425	Molecular Genetics	3
CHEM 311 & 311L	Organic Chemistry I and Organic Chemistry I Laboratory	5
CHEM 312 & 312L	Organic Chemistry II and Organic Chemistry II Laboratory	5
CHEM 315	Biochemistry I	3
Additional Biology Courses		
Select 14 semester hours from the following lists		14
Category 1: Cellular, Developmental, and Molecular		
BIOL 250 & 250L	Introduction to Microbiology-GTSC1 and Introduction to Microbiology Laboratory-GTSC1	
BIOL 310L	Developmental Biology Laboratory [1]	
BIOL 343	Immunology	
BIOL 344 & 344L	Forensic Molecular Biology and Forensic Molecular Biology Laboratory	
BIOL 442	Pharmacology	
CHEM 317L	Biochemistry Laboratory	
CHEM 316	Biochemistry II	
Category 2: Organismal		
BIOL 316 & 316L	Animal Behavior and Animal Behavior Laboratory	
BIOL 322 & 322L	Plant Identification and Plant Identification Laboratory	
BIOL 331 & 331L	Insect Biology and Insect Biology Laboratory	
BIOL 336 & 336L	Fish Biology and Fish Biology Laboratory	
BIOL 338	Small Mammal Biology	
BIOL 350 & 350L	Microbiology and Microbiology Laboratory	
BIOL 411 & 411L	Mammalogy and Mammalogy Laboratory	
BIOL 412 & 412L	Ornithology and Ornithology Laboratory	
BIOL 413 & 413L	Herpetology and Herpetology Laboratory	
BIOL 431 & 431L	Animal Parasitology and Animal Parasitology Laboratory	
BIOL 450 & 450L	Mycology and Mycology Laboratory	
Category 3: Anatomical and Physiological		
BIOL 209 & 209L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Laboratory	
BIOL 210 & 210L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Laboratory	
BIOL 241	Pathophysiology	
BIOL 351 & 351L	Ecological Physiology and Ecological Physiology Laboratory	
BIOL 352 & 352L	Human Physiology and Human Physiology Laboratory	
BIOL 409 & 409L	Gross Human Anatomy and Gross Human Anatomy Laboratory	
BIOL 410 & 410L	Human Osteology and Human Osteology Laboratory	
BIOL 427 & 427L	Plant Anatomy and Physiology and Plant Anatomy and Physiology Laboratory	
BIOL 441	Endocrinology	
Category 4: Ecology, Evolution, and Systematics		
BIOL 315	Epidemiology	
BIOL 320	Plant Systematics	
BIOL 321 & 321L	Taxonomy of Grasses and Taxonomy of Grasses Laboratory	
BIOL 339	Winter Ecology	
BIOL 403	Evolution	
BIOL 405 & 405L	Advanced Ecological Methods and Advanced Ecological Methods Laboratory	
BIOL 406	Plant-Animal Interactions	
BIOL 407	Tropical Field Biology	
BIOL 408	Desert Ecology	
BIOL 414 & 414L	Freshwater Ecology and Freshwater Ecology Laboratory	
BIOL 415	Tropical Ecosystems	
BIOL 418 & 418L	Wildlife Management and Wildlife Management Laboratory	
BIOL 419 & 419L	Fisheries Management and Fisheries Management Laboratory	
BIOL 420	Conservation Biology	
Total Semester Credit Hours		**53**

[1] BIOL 310L is an optional lab for BIOL 310. If BIOL 310 is taken without the lab, it will count toward the degree.

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours, including 40 upper-division hours. 11-13 semester hours; up to 7 hours of upper division may be needed. Research courses are recommended.

Code	Title	Semester Credit Hours
MATH 151	Calculus I-GTMA1	2
CHEM 131 & 131L	General Chemistry I-GTSC1 and General Chemistry Laboratory I-GTSC1	1
CHEM 132 & 132L	General Chemistry II-GTSC1 and General Chemistry Laboratory II-GTSC1	2
Select additional electives		6-8
Total Semester Credit Hours		**11-13**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
BIOL 105 & 105L	Attributes of Living Systems-GTSC1 and Attributes of Living Systems Laboratory-GTSC1	4
CHEM 131 & 131L	General Chemistry I-GTSC1 and General Chemistry Laboratory I-GTSC1	5
MATH 151	Calculus I-GTMA1	5
KINE 100	Health and Wellness	1
	Semester Credit Hours	**15**
Spring Semester		
BIOL 108 & 108L	Diversity of Organisms-GTSC1 and Diversity of Organisms Laboratory-GTSC1	4
CHEM 132 & 132L	General Chemistry II-GTSC1 and General Chemistry Laboratory II-GTSC1	5
STAT 200 or MATH 152	Probability and Statistics-GTMA1 or Calculus II	3-5
ENGL 111	English Composition I-GTCO1	3
	Semester Credit Hours	**15-17**
Second Year		
Fall Semester		
BIOL 208 & 208L	Fundamentals of Ecology and Evolution and Fundamentals of Ecology and Evolution Laboratory	4
CHEM 311 & 311L	Organic Chemistry I and Organic Chemistry I Laboratory	5
ENGL 112	English Composition II-GTCO2	3
Essential Learning - Social and Behavioral Sciences		3
	Semester Credit Hours	**15**
Spring Semester		
BIOL 301 & 301L	Principles of Genetics and Principles of Genetics Laboratory	4
CHEM 312 & 312L	Organic Chemistry II and Organic Chemistry II Laboratory	5
Essential Learning - History		3
Essential Learning - Humanities		3
	Semester Credit Hours	**15**
Third Year		
Fall Semester		
BIOL 302	Cellular Biology	3
PHYS 111 & 111L	General Physics I-GTSC1 and General Physics I Laboratory-GTSC1	5
CHEM 315	Biochemistry I	3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
	Semester Credit Hours	**15**
Spring Semester		
BIOL 310	Developmental Biology	3
PHYS 112 & 112L	General Physics II-GTSC1 and General Physics II Laboratory-GTSC1	5
Essential Learning - Social and Behavioral Sciences		3
KINA Activity		1
	Semester Credit Hours	**12**
Fourth Year		
Fall Semester		
BIOL 371L	Laboratory Investigations in Cellular and Molecular Biology	3
Essential Learning - Fine Arts		3
Additional Biology Course		4
Electives (2 courses)		6
	Semester Credit Hours	**16**
Spring Semester		
BIOL 425	Molecular Genetics	3
BIOL 483	Senior Thesis	2
Additional Biology Courses		8
Elective [1]		4
	Semester Credit Hours	**17**
	Total Semester Credit Hours	**120-122**

[1] Less elective hours may be needed. Adequate elective hours must be taken to bring total semester hours to 120, including 40 upper-division hours.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the “Intent to Graduate” form to the Registrar’s Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student’s petition for graduation is denied, it will be their responsibility to consult the Registrar’s Office regarding next steps.

Ecology, Evolution, and Organismal Biology, Biological Sciences (BS)

Degree: Bachelor of Science
Major: Biological Sciences
Concentration: Ecology, Evolution, and Organismal Biology
Program Code: 3409

The Bachelor of Science degree with a Biological Sciences major provides a broad background in the biological sciences. Students choose biology courses from four categories: cellular, molecular, and developmental biology; anatomical and physiological biology; organismal biology; and ecology, evolution, and systematics. The Ecology, Evolution, and Organismal Biology Concentration will provide a solid background in ecology and evolution, and offers field courses in a variety of areas, in addition to internships and research opportunities. Graduates of this program may pursue careers in ecology, plant biology, fish and wildlife biology, and evolutionary biology, which are just a few of the career options available.

For more information on what you can do with this major, visit Career Services’ What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Demonstrate a broad, comprehensive knowledge of the main areas of biology (including evolution, diversity, ecology, cell biology, and genetics) and the ability to apply this knowledge to address new questions. (Specialized knowledge)
2. Collect and analyze quantitative data and interpret quantitative data presented in primary scientific literature. (Quantitative Fluency/ Applied Learning)
3. Utilize science as a way of thinking and problem solving and make key observations, ask questions, formulate hypotheses, design experiments, collect data, draw logical conclusions, and explain and defend those conclusions to others. (Critical Thinking)
4. Demonstrate effective biological communication skills, both in writing and orally. (Communication fluency)
5. Evaluate and defend contrasting viewpoints related to ethical, social, civic, and/or environmental challenges in the field of biological sciences. (Personal Social Responsibility)
6. Critically search, evaluate, and appropriately apply information from primary scientific literature (Information Literacy)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program’s requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/ certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 113	College Algebra-GTMA1 [2]	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [3]		
CHEM 131 & 131L	General Chemistry I-GTSC1 and General Chemistry Laboratory I-GTSC1	4
CHEM 132 & 132L	General Chemistry II-GTSC1 and General Chemistry Laboratory II-GTSC1	3
Total Semester Credit Hours		**31**

1. Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.
2. This is a 4 credit course. 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit. Also, professional schools (medical, veterinary, dental) may require one semester or two semesters of calculus. MATH 151 and MATH 152 may be used to fulfill the Mathematics requirement. If Math higher than MATH 113 is needed, an ALEKS Math placement test will determine the appropriate Math course.
3. CHEM 131/131L and CHEM 132/132L are 5 credit hours each for a total of 10 semester hours. 7 credit hours will apply to Essential Learning Natural Sciences and 3 credit hours will apply to electives.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

1. Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(7-9 semester hours, must pass all courses with a grade of "C" or higher. Foundation courses should be completed by the end of the sophomore year.)

Code	Title	Semester Credit Hours
BIOL 105 & 105L	Attributes of Living Systems-GTSC1 and Attributes of Living Systems Laboratory-GTSC1	4
Select one of the following:		3-5
STAT 200	Probability and Statistics-GTMA1 [2]	
MATH 151	Calculus I-GTMA1 [2]	
Total Semester Credit Hours		**7-9**

1. A higher-level subject may be taken in the same category with advisor approval. Organic Chemistry may be required for admission to some graduate programs.
2. Statistics **and** Calculus may be required for admission to some graduate programs. If MATH 151 is needed, an ALEKS Math Placement test will determine the appropriate Math course.

Program Specific Degree Requirements

(56 semester hours, must pass all courses with a grade of “C” or higher)

- Topics courses (BIOL 196/BIOL 296/BIOL 396/BIOL 496) as well as research courses (BIOL 387/BIOL 487), internships (BIOL 499), teaching practicums (BIOL 493), and independent study (BIOL 495) may not be used as Additional Biology Courses but must be used for elective credit.

Code	Title	Semester Credit Hours
Core Courses		
BIOL 208 & 208L	Fundamentals of Ecology and Evolution and Fundamentals of Ecology and Evolution Laboratory	4
BIOL 301 & 301L	Principles of Genetics and Principles of Genetics Laboratory	4
BIOL 483	Senior Thesis	2
Required Related Study Area		
PHYS 111 & 111L	General Physics I-GTSC1 and General Physics I Laboratory-GTSC1	5
PHYS 112 & 112L	General Physics II-GTSC1 and General Physics II Laboratory-GTSC1	5
BIOL 106 & 106L	Principles of Animal Biology and Principles of Animal Biology Laboratory	4
BIOL 107 & 107L	Principles of Plant Biology and Principles of Plant Biology Laboratory	4
BIOL 403	Evolution	3
BIOL 405 & 405L	Advanced Ecological Methods and Advanced Ecological Methods Laboratory	5
Additional Biology Courses		
Select 20 semester hours, chosen from the lists below. At least 16 hours must be 300-level or above.		20

Category 1: Cellular, Developmental, and Molecular	
BIOL 302	Cellular Biology
BIOL 310 & 310L	Developmental Biology and Developmental Biology Laboratory [1]
BIOL 343	Immunology
BIOL 344 & 344L	Forensic Molecular Biology and Forensic Molecular Biology Laboratory
BIOL 371L	Laboratory Investigations in Cellular and Molecular Biology
BIOL 425	Molecular Genetics
BIOL 442	Pharmacology
CHEM 315	Biochemistry I
CHEM 316	Biochemistry II
CHEM 317L	Biochemistry Laboratory
Category 2: Organismal	
BIOL 250 & 250L	Introduction to Microbiology-GTSC1 and Introduction to Microbiology Laboratory-GTSC1
BIOL 316 & 316L	Animal Behavior and Animal Behavior Laboratory
BIOL 322 & 322L	Plant Identification and Plant Identification Laboratory
BIOL 331 & 331L	Insect Biology and Insect Biology Laboratory
BIOL 336 & 336L	Fish Biology and Fish Biology Laboratory
BIOL 338	Small Mammal Biology
BIOL 350 & 350L	Microbiology and Microbiology Laboratory
BIOL 411 & 411L	Mammalogy and Mammalogy Laboratory
BIOL 412 & 412L	Ornithology and Ornithology Laboratory
BIOL 413 & 413L	Herpetology and Herpetology Laboratory
BIOL 431 & 431L	Animal Parasitology and Animal Parasitology Laboratory
BIOL 450 & 450L	Mycology and Mycology Laboratory
Category 3: Anatomical and Physiological	
BIOL 209 & 209L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Laboratory
BIOL 210 & 210L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Laboratory
BIOL 241	Pathophysiology
BIOL 351 & 351L	Ecological Physiology and Ecological Physiology Laboratory
BIOL 352 & 352L	Human Physiology and Human Physiology Laboratory
BIOL 409 & 409L	Gross Human Anatomy and Gross Human Anatomy Laboratory
BIOL 410 & 410L	Human Osteology and Human Osteology Laboratory
BIOL 427 & 427L	Plant Anatomy and Physiology and Plant Anatomy and Physiology Laboratory
BIOL 441	Endocrinology
Category 4: Ecology, Evolution, and Systematics	
BIOL 315	Epidemiology
BIOL 320	Plant Systematics
BIOL 321 & 321L	Taxonomy of Grasses and Taxonomy of Grasses Laboratory
BIOL 339	Winter Ecology
BIOL 406	Plant-Animal Interactions
BIOL 407	Tropical Field Biology
BIOL 408	Desert Ecology
BIOL 414 & 414L	Freshwater Ecology and Freshwater Ecology Laboratory
BIOL 415	Tropical Ecosystems
BIOL 418 & 418L	Wildlife Management and Wildlife Management Laboratory
BIOL 419 & 419L	Fisheries Management and Fisheries Management Laboratory
BIOL 420	Conservation Biology
GIST 305	Cartography for GIS
GIST 332 & 332L	Introduction to Geographic Information Systems and Introduction to Geographic Information Systems Laboratory
GEOG 131	Introduction to Cartography
Total Semester Credit Hours	**56**

[1] BIOL 310L does not need to be taken concurrently with BIOL 310. It is an optional course as a supplement to BIOL 310. If BIOL 310 is taken without the lab, it will count toward the degree.

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours, including 40 upper-division hours. 18-20 semester hours; up to 10 hours of upper division may be needed. BIOL 499 Internship or research courses are recommended.

Code	Title	Semester Credit Hours
MATH 113	College Algebra-GTMA1	1
CHEM 131 & 131L	General Chemistry I-GTSC1 and General Chemistry Laboratory I-GTSC1	1
CHEM 132 & 132L	General Chemistry II-GTSC1 and General Chemistry Laboratory II-GTSC1	2
14-16 General Elective Semester Hours		14-16
Total Semester Credit Hours		**18-20**

Suggested Course Plan

First Year

Fall Semester		Semester Credit Hours
BIOL 105 & 105L	Attributes of Living Systems-GTSC1 and Attributes of Living Systems Laboratory-GTSC1	4
CHEM 131 & 131L	General Chemistry I-GTSC1 and General Chemistry Laboratory I-GTSC1	5
MATH 113	College Algebra-GTMA1	4

KINE 100	Health and Wellness	1
	Semester Credit Hours	**14**
Spring Semester		
BIOL 106 & 106L	Principles of Animal Biology and Principles of Animal Biology Laboratory	4
CHEM 132 & 132L	General Chemistry II-GTSC1 and General Chemistry Laboratory II-GTSC1	5
ENGL 111	English Composition I-GTCO1	3
STAT 200 or MATH 151	Probability and Statistics-GTMA1 or Calculus I-GTMA1	3-5
	Semester Credit Hours	**15-17**
Second Year		
Fall Semester		
BIOL 107 & 107L	Principles of Plant Biology and Principles of Plant Biology Laboratory	4
ENGL 112	English Composition II-GTCO2	3
PHYS 111 & 111L	General Physics I-GTSC1 and General Physics I Laboratory-GTSC1	5
Essential Learning - Social and Behavioral Sciences		3
	Semester Credit Hours	**15**
Spring Semester		
BIOL 208 & 208L	Fundamentals of Ecology and Evolution and Fundamentals of Ecology and Evolution Laboratory	4
BIOL 301 & 301L	Principles of Genetics and Principles of Genetics Laboratory	4
PHYS 112 & 112L	General Physics II-GTSC1 and General Physics II Laboratory-GTSC1	5
KINA Activity		1
	Semester Credit Hours	**14**
Third Year		
Fall Semester		
BIOL 403	Evolution	3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Essential Learning - History		3
Additional Biology Courses		6
	Semester Credit Hours	**16**
Spring Semester		
BIOL 405 & 405L	Advanced Ecological Methods and Advanced Ecological Methods Laboratory	5
Essential Learning - Social and Behavioral Sciences		3
Social and Behavioral Sciences - Humanities		3
Electives		4
	Semester Credit Hours	**15**
Fourth Year		
Fall Semester		
Essential Learning - Fine Arts		3
Additional Biology Courses		7
Elective		6
	Semester Credit Hours	**16**
Spring Semester		
BIOL 483	Senior Thesis	2
Additional Biology Courses		7
Electives [1]		6
	Semester Credit Hours	**15**
	Total Semester Credit Hours	**120-122**

[1] Less elective hours may be needed. Adequate elective hours must be taken to bring total semester hours to 120, including 40 upper-division hours.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Education: Secondary Education, Biological Sciences (BS)

Degree: Bachelor of Science
Major: Biological Sciences
Concentration: Biology, Secondary Education
Program Code: 3412

The Biology program offers coursework, in conjunction with the Center for Teacher Education, leading to licensure in secondary education science. Graduates of the program can teach in the state of Colorado or use their teaching expertise in other careers. After completing foundation sciences classes in Biology, Chemistry, Physics and Geology, students choose 10 hours of upper level Biology course work, in consultation with their advisor.

The secondary licensure program provides teacher education candidates with broad content knowledge in science and prepares them as teachers for grades 7 through 12. A minimum of 75 credit hours of Essential Learning and content area coursework must be completed with a

minimum GPA of 2.80 before a candidate may apply for admission to the Center for Teacher Education secondary licensure program. Please see the Teacher Education Admission Packet for further information on admissions criteria. EDUC 115, What It Means to be an Educator, and EDUC 215, Teaching as a Profession, must be taken before applying to the program.

Important information for this degree:

- 2.80 cumulative GPA or higher required in all CMU coursework.
- All EDUC prefix courses must be completed with a grade of "B" or better.
- Students must pass the PRAXIS II exam in the content area prior to beginning the internship. Also, all other coursework toward the degree must be successfully completed prior to the internship.
- A grade of "C" or better must be earned in all required courses, unless otherwise stated.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Biological Sciences Outcome 1: Utilize the scientific approach to address novel questions and problems through the development of hypotheses, design of experiments, collection of data, analysis of data, and interpretation of results. (Quantitative Fluency/Applied Learning)
2. Biological Sciences Outcome 2: Identify, examine, evaluate and discuss the scientific literature. (Critical Thinking)
3. Biological Sciences Outcome 3: Articulate biological principles and ideas effectively, both in written and oral form. (Communication Fluency)
4. Teacher Education Outcome 1: Demonstrate mastery of major area's content knowledge and pedagogical strategies through fieldwork with learners in professional settings. (Specialized Knowledge/Applied Learning)
5. Teacher Education Outcome 2: Design and establish a safe, inclusive, and respectful learning environment for a diverse population of students. (Specialized Knowledge/Applied Learning)
6. Teacher Education Outcome 3: Plan and deliver effective instruction to students, based on research-based pedagogical practices. (Communication Literacy/Information Literacy)
7. Teacher Education Outcome 4: Collect and analyze student assessment data and use results to inform planning and instruction. (Quantitative Fluency/Critical Thinking)
8. Teacher Education Outcome 5: Demonstrate professionalism through ethical conduct, reflection, and leadership. (Personal and Social Responsibility)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this degree:

- 2.80 cumulative GPA or higher required in all CMU coursework.

Essential Learning Requirements

(31 semester hours, must earn a grade of "C" or better in each course, unless otherwise noted.)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [2]		

MATH 113	College Algebra-GTMA1 (or higher) [3]	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
PSYC 233	Human Growth and Development-GTSS3 [4]	3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [5]		
BIOL 105 & 105L	Attributes of Living Systems-GTSC1 and Attributes of Living Systems Laboratory-GTSC1	4
One of the following courses:		3
ENVS 101	Introduction to Environmental Science-GTSC2	
GEOL 103	Weather and Climate-GTSC2	
GEOL 104	Oceanography-GTSC2	
GEOL 105	Geology of Colorado-GTSC2	
PHYS 101	Elementary Astronomy-GTSC2	
Total Semester Credit Hours		**31**

1. 6 semester hours, must receive a grade of "B" or better and must be completed by the time the student has 60 semester hours.
2. 3 semester hours, must receive a grade of "C" or better, must be completed by the time the student has 60 semester hours.
3. MATH 113 is 4 credit hour course. 3 credits apply to the Essential Learning requirements and one credit applies to the required related study area. If Math higher than MATH 113 is needed, an ALEKS Math Placement test will determine the appropriate Math course.
4. Must receive a grade of "B" or better.
5. 7 semester hours, one course must include a lab, must be completed with a grade of "C" or better.

Other Lower Division Requirements

Must earn a grade of "C" or better in each course, unless otherwise noted.

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

1. Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(13 semester hours, must pass all courses with a grade of "C" or higher.)

Code	Title	Semester Credit Hours
CHEM 131 & 131L	General Chemistry I-GTSC1 and General Chemistry Laboratory I-GTSC1	5
CHEM 132 & 132L	General Chemistry II-GTSC1 and General Chemistry Laboratory II-GTSC1	5
STAT 200	Probability and Statistics-GTMA1	3
Total Semester Credit Hours		**13**

1. A higher-level subject may be taken in the same category with advisor approval.

Program Specific Degree Requirements

(40 semester hours, must pass all courses with a grade of "C" or higher and maintain a 2.80 cumulative GPA or higher in coursework in this area.)

Code	Title	Semester Credit Hours
Core Courses		
BIOL 106 & 106L	Principles of Animal Biology and Principles of Animal Biology Laboratory	4
BIOL 107 & 107L	Principles of Plant Biology and Principles of Plant Biology Laboratory	4
BIOL 385	Nature and Philosophy of Science	3
BIOL 483	Senior Thesis	2
Required Related Study Area		
MATH 113	College Algebra-GTMA1	1
One of the following sets of courses:		4
GEOL 111 & 111L	Principles of Physical Geology-GTSC1 and Principles of Physical Geology Laboratory-GTSC1	
GEOL 113 & 113L	Field-Based Introduction to Physical Geology-GTSC1 and Field-Based Introduction to Physical Geology Laboratory-GTSC1	
GEOL 112 & 112L	Principles of Historical Geology-GTSC1 and Principles of Historical Geology Laboratory-GTSC1	4
PHYS 111 & 111L	General Physics I-GTSC1 and General Physics I Laboratory-GTSC1	5
PHYS 112 & 112L	General Physics II-GTSC1 and General Physics II Laboratory-GTSC1	5
Biology Electives		
Select 8 semester hours of upper division BIOL courses:		8
Total Semester Credit Hours		**40**

Secondary Education Requirements

(29 semester hours, must pass all EDUC courses with a grade of "B" or higher.)

Program Requirements: ENGL 111, ENGL 112, PSYC 233, EDUC 115, and EDUC 215 (all with a grade of B or better) and formal acceptance to the Teacher Education Program.

Code	Title	Semester Credit Hours
EDUC 115	What It Means To Be An Educator (8 field experience hours)	1
EDUC 215	Teaching as a Profession (12 field experience hours)	1
EDUC 342	Pedagogy and Assessment: Secondary and K-12 (20 field experience hours)	3
EDUC 343	Teaching to Diversity (20 field experience hours)	3
EDUC 442	Integrating Literacy Across the Curriculum: Secondary and K-12 Art (60 field experience hours)	3
EDUC 475	Classroom Management for K-12 Educators	1
EDUC 480	Methods and Topics in Secondary Teaching	3
EDUC 480D	Methods of Teaching Secondary Science [1]	2
EDUC 499G	Teaching Internship and Colloquia: Secondary (600 field experience hours)	12
Praxis II Exam Passed		
Total Semester Credit Hours		**29**

[1] This course is only offered in the fall semester. It may be taken with either the 300-level or 400-level EDUC courses but must be taken before the student teaching semester.

All EDUC prefix courses listed above must be completed with a grade of "B" or better to progress through the program sequence. Students must PASS the PRAXIS II exam in the content area prior to commencing the internship. Also, ALL other coursework toward the degree must be successfully completed prior to the internship.

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours. 1 semester hour. Must earn a "C" or better.

Code	Title	Semester Credit Hours
Select elective		1
Total Semester Credit Hours		**1**

Suggested Course Plan

First Year		
Fall Semester		
BIOL 105 & 105L	Attributes of Living Systems-GTSC1 and Attributes of Living Systems Laboratory-GTSC1	4
ENGL 111	English Composition I-GTCO1	3
MATH 113	College Algebra-GTMA1	4
CHEM 131 & 131L	General Chemistry I-GTSC1 and General Chemistry Laboratory I-GTSC1	5
	Semester Credit Hours	**16**
Spring Semester		
BIOL 106 & 106L	Principles of Animal Biology and Principles of Animal Biology Laboratory	4
ENGL 112	English Composition II-GTCO2	3
STAT 200	Probability and Statistics-GTMA1	3
CHEM 132 & 132L	General Chemistry II-GTSC1 and General Chemistry Laboratory II-GTSC1	5
EDUC 115	What It Means To Be An Educator	1
	Semester Credit Hours	**16**
Second Year		
Fall Semester		
BIOL 107 & 107L	Principles of Plant Biology and Principles of Plant Biology Laboratory	4
PHYS 111 & 111L	General Physics I-GTSC1 and General Physics I Laboratory-GTSC1	5
PSYC 233	Human Growth and Development-GTSS3	3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
	Semester Credit Hours	**16**
Spring Semester		
Select one of the following:		4
GEOL 111 & 111L	Principles of Physical Geology-GTSC1 and Principles of Physical Geology Laboratory-GTSC1	
GEOL 113 & 113L	Field-Based Introduction to Physical Geology-GTSC1 and Field-Based Introduction to Physical Geology Laboratory-GTSC1	
PHYS 112 & 112L	General Physics II-GTSC1 and General Physics II Laboratory-GTSC1	5
ENVS 101 or GEOL 103 or GEOL 104 or GEOL 105 or PHYS 101	Introduction to Environmental Science-GTSC2 or Weather and Climate-GTSC2 or Oceanography-GTSC2 or Geology of Colorado-GTSC2 or Elementary Astronomy-GTSC2	3
EDUC 215	Teaching as a Profession	1
KINA Activity		1
KINE 100	Health and Wellness	1
	Semester Credit Hours	**15**
Third Year		
Fall Semester		
Essential Learning - Social and Behavioral Sciences		3
GEOL 112 & 112L	Principles of Historical Geology-GTSC1 and Principles of Historical Geology Laboratory-GTSC1	4
Upper Division Biology Elective		4
Essential Learning - Humanities		3
	Semester Credit Hours	**14**
Spring Semester		
EDUC 342	Pedagogy and Assessment: Secondary and K-12	3
EDUC 343	Teaching to Diversity	3
BIOL 385	Nature and Philosophy of Science	3
Upper Division Biology Elective		4
Essential Learning - History		3
	Semester Credit Hours	**16**
Fourth Year		
Fall Semester		
BIOL 483	Senior Thesis	2
Elective		1
Essential Learning - Fine Arts		3
EDUC 442	Integrating Literacy Across the Curriculum: Secondary and K-12 Art	3
EDUC 475	Classroom Management for K-12 Educators	1
EDUC 480	Methods and Topics in Secondary Teaching	3
EDUC 480D	Methods of Teaching Secondary Science	2
	Semester Credit Hours	**15**
Spring Semester		
EDUC 499G	Teaching Internship and Colloquia: Secondary	12
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**120**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Biology, Liberal Arts (AS)

Degree: Associate of Science
Major: Liberal Arts
Emphasis: Biology
Program Code: 2411

The Associate of Science (A.S.) degree is designed for students who intend to continue their education and obtain a baccalaureate degree. The A.S. is the appropriate choice for students who will take upper division coursework in mathematics, biological sciences, and physical sciences. The Essential Learning requirements of this degree program meet the Colorado Statewide General Education Core and the lower division general education requirements at most public institutions in Colorado.

In the Biology Program students choose courses from four areas: cell, molecular, and developmental biology; anatomical and physiological biology; organismal biology; or ecology, evolution, and systematics. Graduates of our program with an A.S. degree may then seek to continue their education to pursue careers in teaching, plant pathology, wildlife biology, cell biology or biotechnology, among just a few of the career options, or may use their A.S. to support careers in other disciplines.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Demonstrate a basic knowledge of the main areas of biology (including plant and animal biology, evolution, ecology, cell biology and genetics) and the ability to apply this knowledge to address new questions. (Specialized Knowledge)
2. Gather, organize and analyze scientific data and draw logical conclusions. (Critical Thinking)
3. Demonstrate effective communication skills, both in writing and orally in Biology. (Communication Fluency)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU or CMU Tech Associate of Science (AS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours total.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade of "C" or higher must be earned in all Essential Learning courses in order to be accepted for transfer under the Colorado Core Transfer Consortium General Education curriculum or gtPathways, Colorado's guaranteed transfer program.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 15 semester credit hours for an associate of science degree. A maximum of 6 of the 15 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.

- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 113	College Algebra-GTMA1 [2]	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [3]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

[1] Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

[2] 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.

[3] 7 semester hours, one course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Total Semester Credit Hours		**2**

Program Specific Degree Requirements

(24 semester hours, a grade of "C" or better must be earned in each course.)

Code	Title	Semester Credit Hours
Core Courses		
BIOL 105	Attributes of Living Systems-GTSC1	3
BIOL 105L	Attributes of Living Systems Laboratory-GTSC1	1
BIOL 106	Principles of Animal Biology	3
BIOL 106L	Principles of Animal Biology Laboratory	1
BIOL 107	Principles of Plant Biology	3
BIOL 107L	Principles of Plant Biology Laboratory	1
BIOL 208	Fundamentals of Ecology and Evolution	3
BIOL 208L	Fundamentals of Ecology and Evolution Laboratory	1
Required Biology Specialization Courses		
Select eight semester hours [1]		8
Total Semester Credit Hours		**24**

[1] To be selected in consultation with student's advisor.

General Electives

Code	Title	Semester Credit Hours
MATH 113	College Algebra-GTMA1	1
Up to 2 Semester Hours General Electives		0-2
Total Semester Credit Hours		**1-3**

[1] All college level courses, not listed above, that will bring your total semester hours to 60 hours. Up to three hours may be needed.

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
BIOL 105	Attributes of Living Systems-GTSC1	3
BIOL 105L	Attributes of Living Systems Laboratory-GTSC1	1
ENGL 111	English Composition I-GTCO1	3
MATH 113	College Algebra-GTMA1	4
Essential Learning - Fine Arts		3
KINE 100	Health and Wellness	1
	Semester Credit Hours	**15**
Spring Semester		
BIOL 106	Principles of Animal Biology	3
BIOL 106L	Principles of Animal Biology Laboratory	1
ENGL 112	English Composition II-GTCO2	3
Essential Learning - Humanities		3
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - History		3
	Semester Credit Hours	**16**

Second Year		
Fall Semester		
BIOL 107	Principles of Plant Biology	3
BIOL 107L	Principles of Plant Biology Laboratory	1
BIOL 208	Fundamentals of Ecology and Evolution	3
BIOL 208L	Fundamentals of Ecology and Evolution Laboratory	1
Biology Specialization Selection		4
Essential Learning - Natural Science without a lab		3
	Semester Credit Hours	**15**
Spring Semester		
Biology Specialization Selection		3
Essential Learning - Natural Science with lab		4
Essential Learning - Social and Behavioral Sciences		3
Wellness Requirement - Activities Course		1
Elective		3
	Semester Credit Hours	**14**
	Total Semester Credit Hours	**60**

Students that intend to continue with Colorado Mesa University should take ESSL 290 - Maverick Milestone and ESSL 200 - Essential Speech during the final semester of their Associate of Science work.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Biology (Minor)

Minor: Biology
Program Code: M400

In the Biology Program students choose courses from four areas: cell, developmental, and molecular biology; anatomical and physiological biology; organismal biology; and ecology, evolution, and systematics. Graduates of our program with a Minor in Biology may then seek to continue their education in Biology or may use their Minor to support careers in other disciplines.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(20 semester hours)

Code	Title	Semester Credit Hours
Required Courses		
BIOL 105	Attributes of Living Systems-GTSC1	3
BIOL 105L	Attributes of Living Systems Laboratory-GTSC1	1
BIOL 106	Principles of Animal Biology	3
BIOL 106L	Principles of Animal Biology Laboratory	1
BIOL 107	Principles of Plant Biology	3
BIOL 107L	Principles of Plant Biology Laboratory	1
Choose 8 Semester Hours of BIOL courses, all of which must be upper division hours		8
Total Semester Credit Hours		**20**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the "Intent to Graduate" form.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Business

(Also see Computer Information Systems (p. 263), Energy Management/Landman (p. 416), and Hospitality Management (p. 508))

Program Description

Master of Business Administration

The Master of Business Administration (MBA) is a challenging degree that prepares graduates for the ever-changing business world. With a combination of theory and application of current business practices, classes provide students the opportunity to analyze actual business scenarios. See Graduate Policies and Programs section (p. 85) of this catalog for complete degree requirements.

Bachelor of Business Administration

The Bachelor of Business Administration (BBA) degree provides an in-depth study of the many facets of business. The program's extensive business core provides students with the knowledge, skills and abilities to compete in both local and global business environments. The business core covers functional areas of business and offers an applied approach, providing students with an opportunity to apply concepts and theories learned in class to real-life business projects. Students choose from the listed concentrations and gain additional depth in one or more areas.

The BBA is a very versatile and valuable degree. In addition to positions in corporate America, graduates hold positions in nonprofit organizations like hospitals, schools, and theaters, as well as positions in organizations ranging from entry-level manager to Chief Executive Officer. Colorado Mesa University's BBA graduates are entrepreneurs, small business owners, bank vice-presidents, product managers in advertising firms, and project and operations managers in manufacturing organizations.

BBA Concentrations (Students must choose at least one)

Requirements vary with the concentration selected. See program concentration options with links to program details in the Programs of Study tab and visit Degree Works for complete requirements for the major and selected concentration.

Bachelor of Applied Science: Business Administration

The Bachelor of Applied Science (BAS) in Business Administration combines the technical skills and business proficiency necessary for success. A unique program, the BAS degree allows students who have already earned an Associate of Applied Science (AAS) degree to build upon their technical specialties with essential learning courses and junior and senior level business courses. This allows associate degree holders to gain a 4-year degree in approximately four additional full-time semesters, depending upon prior coursework. Business courses include courses in marketing, promotion, management, accounting, finance, small business management and entrepreneurship. Upon completion of the program, students will be technically and academically prepared for leadership positions in their chosen industries. Prospective students not holding an AAS degree can begin their university career at CMU in a chosen field of study with a 2-year degree and then progress to a 4-year degree using the BAS. This degree will provide students with the ability to move into supervision/management positions.

Bachelor of Science: General Accounting

This program is designed for undergraduate students who do not wish to pursue CPA certification. The General Accounting concentration provides students with basic business skills as well as the accounting knowledge needed to work in an accounting department in private industry or government.

Bachelor of Science: Public Accounting

The Public Accounting concentration provides students with basic business skills as well as the accounting knowledge needed to pass the Certified Public Accounting (CPA) exam. Graduates of this program have a very high CPA exam pass rate and are heavily recruited by local and regional CPA firms. Most graduates will have job offers months before they graduate. This program is designed to be the undergraduate component of the 3+2 accounting program which can earn the graduate a Bachelor of Science in Accounting and a Master of Business Administration (MBA) in five years. The Public Accounting concentration is the required pathway for the 3+2 program and, in conjunction with the 3+2 program, will provide the curriculum needed for CPA licensure.

Bachelor of Science: Computer Information Systems

The Bachelor of Science in Computer Information Systems is a degree required today as organizations face the challenges of technology management. This program provides graduates with business management skills and computer information expertise to manage computer systems in today's organizations. Graduates of this program are employed in occupations such as systems analysts, analyst/programmers, database administrators, network administrators, web page designers, help desk specialists and IT managers. Graduates assist businesses with creating, obtaining and maintaining computer information systems that solve problems and assist in facilitating routine business events. As businesses increasingly rely on technology to provide a competitive advantage, employees with an understanding of both business concepts and computer systems are necessary. Computer information systems studies require students to examine computer systems from organizational, social, psychological and technical perspectives. Graduates from this program will have taken a variety of courses that were developed based on national guidelines for quality degrees in information systems.

Associate of Arts: Business Administration

The Associate of Arts (AA) degree is designed for students who intend to continue their education and obtain a baccalaureate degree. The Business Administration AA degree, in addition to providing students with their essential learning courses, is useful in giving students an overview of business. The AA is also an appropriate choice for students who will take upper division coursework in the arts, humanities, or social and behavioral sciences. Through the acquisition of essential learning credits, the degree also positions students for completion of a four-year degree in business. The degree includes the Colorado Statewide General Education Core and meets the lower-division general education requirements at most public institutions in Colorado.

Associate of Applied Science: Hospitality Management

The field of hospitality management combines the technical skills and business proficiency necessary for success in today's business world.

Minors

Minors are designed to prepare non-business students with an overview of business knowledge, allowing students to combine other disciplines with necessary business skills. Four functional areas of business are covered in the minor with additional upper division courses required based upon the chosen minor.

Accounting

Accounting is the language of business and regardless of your major, the more accounting you have the better prepared you will be for a management position. This is a rigorous minor that will stand out on a resume.

Business Administration

The Business Administration minor complements many other degrees and is designed to prepare students to enter the world of business with the basic business skills needed to contribute more efficiently and effectively in the workplace. Courses in management, marketing and workplace communication provide students an opportunity to build a foundation in business. Additionally, courses in accounting, finance and computer information systems allow students to choose classes that best fit their career goals. A Business Administration minor coupled with a non-business major can increase the employment opportunities available in a variety of areas.

Business Analytics

The minor in Business Analytics is designed to prepare students for managerial level decision making based on the use of information and computer technology. Today's world presents a wealth of data. Using data effectively requires insight and talent with a variety of tools. The Business Analytics minor is intended for students who are interested in expanding their knowledge and skills in the use of data and related technologies. A Business Analytics minor coupled with any major can increase the employment opportunities available in a wide variety of areas.

Computer Information Systems

The Computer Information Systems minor allows students majoring in other subjects to enhance their degree with information systems knowledge. Graduates may use their expertise to help solve computer system problems for businesses. Since many businesses rely heavily on computer systems as decision-making tools, graduates with this minor will have a competitive advantage over those without it when applying for positions in many organizations. This minor may also give students an advantage when attempting to advance within an organization. Additionally, many employees across numerous organizations find themselves using computer hardware and software as productivity tools within their positions on a daily basis. The Computer Information Systems minor assists students in learning skills and background information that they will need in all occupations.

Cybersecurity

Housed under the Computer Information Systems program, this is a new interdisciplinary minor in cybersecurity designed for students enrolled in various degrees and programs at CMU. Students enrolled in this minor program take six (6) courses in total; three (3) from Computer Information Systems and three (3) from Computer Science. Visit the Cybersecurity page (p. 313) for additional details about this minor.

Economics

The Economics minor is designed to prepare non-business students with an overview of business knowledge, allowing students to combine other disciplines with necessary business skills. The functional areas of business are covered in the minor with additional upper division courses required based upon the chosen minor. The minor in economics is designed to prepare students with an overview of the basics of economics. Coursework includes the principle classes in macroeconomics and microeconomics, plus intermediate macroeconomics and microeconomics courses. The required coursework prepares students with the critical thinking and problem solving skills needed in today's world, as well as the ability to apply economic rationale in the decision making process.

The Davis School of Business also offers the Bachelor of Business Administration with a concentration in economics.

Entrepreneurship

The minor in entrepreneurship is designed to equip students with the basic knowledge and skills needed to successfully operate a small business. The Entrepreneurship minor is intended for students in disciplines other than business who wish to begin small businesses in their major area. The minor will provide students with the basics needed as they face the exciting challenges of small business ownership.

The Davis School of Business also offers the Bachelor of Business Administration with a concentration in entrepreneurship.

Hospitality Management

For the student interested in the area of hospitality, a minor coupled with a bachelor's degree can increase the employment opportunities available in a variety of hospitality-related areas.

International Business

The International Business minor is designed for students who would like to combine business studies with their interest in the Spanish language and Hispanic culture. This multidisciplinary minor provides students the opportunity to develop required skills to operate in multinational firms and global markets.

Certificates

Business certificates are designed to provide entry-level knowledge, skills and abilities in a specific area. The coursework in each of the certificates can also be used as hours toward a two-year or four-year degree in that specialization. Emphasis in each certificate is on knowledge and skill development.

Computer Information Systems: Decision Support Systems

The certificate in decision support systems is designed to expose students and business managers to the knowledge and skills needed to use computer software to solve business problems, particularly to support decision making. The certificate will provide students with an overview of information they would encounter if they went on to earn the BBA concentration in information systems or the BS in computer information systems, each of which more fully prepares students to work in or manage the information systems functions of organizations.

Cybersecurity

Housed under the Computer Science (CS) program and the Computer Science and Engineering department, the applied technical certificate degree is especially designed for CS majors to concentrate in cybersecurity fundamentals and principles grounded on the strong foundation of CS knowledge. However, working professionals with a strong background in system and network administration of computer science in general can enroll in this program independent of the major and degree. Students take three (3) security courses (along with programming remedial course(s), if required) to get their professional certificate in cybersecurity. Visit the Cybersecurity page (p. 313) for additional details about this certificate.

Energy Management/Landman

The certificate in energy management/landman is designed to provide students with the knowledge and skills needed to engage in landman/energy management activities in the workplace. The certificate also better prepares students if they choose to then pursue a BBA with a concentration in energy management/landman.

Entrepreneurship

The certificate in entrepreneurship is designed to expose students and prospective entrepreneurs to the beginning knowledge and skills needed to examine and evaluate entrepreneurship opportunities. The certificate will provide students with an overview of business knowledge, which more fully prepares them to operate their own businesses.

Fraud Examination

The certificate is designed to prepare students to conduct financial fraud examinations in a variety of organizations. The curriculum is aligned with the Association of Certified Fraud Examiners (ACFE) requirements to sit for the Certified Fraud Examiner (CFE) exam. The curriculum will focus on adding to existing accounting students' and professionals' knowledge of financial statement auditing and enable the certificate holder to achieve an additional professional certification beyond the Certified Public Accountant (CPA). Courses will include study of Fraud and Forensic Accounting, Data Analysis for Accounting, Forensic and Fraud Legalities, and Fraud Examination.

Human Resource Management

The certificate is designed to prepare students to practice HR Management in a variety of organizations. The curriculum is aligned with the Society for Human Resource Management (SHRM) Body of Competency and Knowledge (BoCK). Students will gain technical HR knowledge and expertise to demonstrate mastery of critical HR functions including HR Strategic Planning, Talent Acquisition, Employee Engagement & Retention, Training and Development, Total Rewards, Structure of the HR Function, Organizational Effectiveness & Development, Workforce Management. HR in the Global Context, Diversity & Inclusion, Risk Management, Corporate Social Responsibility, and U.S. Employment Law & Regulations.

Real Estate

The certificate in real estate offers students invaluable knowledge of the real estate industry, knowledge that can be used both personally and professionally. With over five million people currently employed in the real estate industry, this certificate provides opportunities in many differing real estate careers. Students will be provided opportunities to learn all aspects of the industry to include appraisal and assessment, property management, commercial and residential investment opportunities and management, real estate law, and real estate financing. Students will also learn the tools needed to analyze and evaluate both personal and professional potential real estate investment opportunities. This certificate is not intended to lead to real estate licensure.

Contact Information

Davis School of Business
Dominguez Hall 301
970.248.1778

Programs of Study

Associates

- Business Administration, Liberal Arts (AA) (p. 238)

Bachelors/Minors

- Bachelor of Business Administration in Finance + Master of Business Administration (3+2) (p. 205)
- Bachelor of Science Construction Management + Master of Business Administration (3+2) (p. 288)
- Bachelor of Science in Accounting + Master of Business Administration (3+2) (p. 102)
- Business (Minor) (p. 240)
- Business Administration (BAS) (p. 205)
- Business Analytics (Minor) (p. 271)
- Business Analytics, Business Administration (BBA) (p. 232)
- Business Economics, Business Administration (BBA) (p. 208)
- Economics (Minor) (p. 241)
- Energy Management/Landman, Business Administration (BBA) (p. 211)
- Entrepreneurship (Minor) (p. 242)
- Entrepreneurship, Business Administration (BBA) (p. 214)
- Finance, Business Administration (BBA) (p. 217)
- Hospitality Management, Business Administration (BBA) (p. 220)
- Human Resource Management, Business Administration (BBA) (p. 223)
- International Business (Minor) (p. 243)
- International Business, Business Administration (BBA) (p. 226)
- Management, Business Administration (BBA) (p. 229)
- Marketing, Business Administration (BBA) (p. 235)

Certificates

- Entrepreneurship (Professional Certificate) (p. 244)
- Human Resource Management (Professional Certificate) (p. 245)
- Real Estate (Professional Certificate) (p. 731)
- Supervision (Technical Certificate) (p. 246)

Graduate

- Business Administration (MBA) (p. 202)

Business Administration (MBA)

Degree: Master of Business Administration
Major: Business Administration
Program Code: 8100

The Colorado Mesa University Master of Business Administration degree is a challenging program designed to prepare graduates for the changing business world. The degree is awarded after successful completion of 36-39 semester hours of rigorous study. The program is designed to provide the student with a broad background in business while allowing the student to focus on a specified area of study, if desired. To this end, students acquire knowledge of management operations; an appreciation of the interrelationships involved in business; an understanding of the economic, political and social environment in which businesses function; and behavioral skills that are essential in the manager's role in the implementation of business decisions. The MBA program endeavors to provide an atmosphere conducive to the development of each student's ability to think in a creative manner and to effectively problem solve. The MBA program is 100% online with no residency requirements. We make extensive use of the latest learning management systems to disseminate course materials, lectures, simulations, group projects, case studies and applied research. All of our courses are taught by qualified graduate faculty with exceptional experience in higher education and industry.

An MBA student can pursue one of several tracks; Professional track, Management Information Systems track, Healthcare Administration, or Sports Management track. Each track has three basic components: a 27-hour core, a 3-hour research component, and 6-9 hours of additional master's level coursework consistent with a chosen track.

There are two types of applicants for the MBA program. The first type is the **Traditional MBA** applicant who has earned an undergraduate degree. The second type of applicant has not yet earned their undergraduate degree and is currently enrolled at CMU in the BS Public Accounting program, the BBA Finance program, or the BS Construction Management program and may qualify to pursue the MBA as part of a Bachelor degree **3+2 MBA** concurrent enrollment program.

Important information for the **Traditional MBA** applicant:

- An applicant must:
  - Domestic applicants must possess an undergraduate degree from a regionally accredited college or university;
  - Have earned a GPA of 3.0 or better from the most recent 60 credit hours of course work earned toward a bachelor's degree, including required leveling courses;
  - Submit an essay indicating reasons for seeking a Master of Business Administration degree including professional and/or career goals and pertinent past work experience. The minimum length is 750 words, submitted as MS Word document with 1" margins, 12 pt. font and a cover page which includes the name of applicant and date;
  - Provide a current resume;
  - Provide contact information for two (2) recommendations: one professional and one academic;
- An international student must take the TOEFL and achieve a score of 550 or higher (213 on the computer-based tests or 79-80 on the internet-based test), and meet other requirements as specified under International Student Admission criteria.
- Leveling Courses provide a foundation for success in the MBA program. Applicants who enter the program with an undergraduate degree in business come prepared with business knowledge from these courses. Non-business majors are encouraged, but not required, to prepare for their MBA experience by taking the following courses. While each of these courses is offered by CMU, additional delivery methods are available, including online instruction.. The leveling courses are: ACCT 201, CISB 101, FINA 301, MANG 201, MARK 231, and CISB 241 or STAT 241.
- 36-39 Semester Hours are required for the MBA Degree.

- No class grade lower than "B" will be counted in the degree.
- It is the student's responsibility to read, understand, and follow all policies and procedures in the MBA Handbook.
- Prior to completing their first semester or first six hours of the program a student must file a Degree Planning Sheet with the MBA Coordinator to delineate that student's specific degree requirements.
- Admission to the program also follows all general admissions policies & procedures for graduate programs outlined in the university catalog.

Important information for the **3+2 MBA** applicant:

Applicants must meet the following criteria in addition to all of the criteria for the MBA program.

1. Accepted into one of the following four-year bachelor degree programs, must have successfully completed the indicated courses, and must have earned the indicated number of credit hours in the bachelor degree major.
   a. BS in Accounting, Public Accounting Concentration; ACCT 322 or currently enrolled in it; 11 hours of ACCT.
   b. BBA, Finance Concentration; FINA 301 and FINA 320; 17 hours of BBA Foundation Courses.
   c. BS in Construction Management; CONM 340, 361, and 362 or 379; 17 hours of BS Foundation Courses.
2. Classified as a senior (i.e., at least 90 credit hours including hours in which the student is currently enrolled and for which the student is registered for a future semester.).
3. At least a 3.25 overall GPA and must have at least a 3.25 GPA in courses in the student's declared major.
4. A 3+2 Concurrent Enrollment application form to the MBA Office.
5. Submit to the MBA Liason in the business school office, a program completion plan demonstrating how all remaining bachelor degree requirements and all MBA requirements will be met in two years.
6. Provide to the business school office a letter of recommendation from a faculty member in the bachelor degree department.
7. Submit official transcripts to the business school office.
8. Complete the MBA program admission process.
9. Meet with MBA Coordinator and have been approved for study in the 3+2 concurrent enrollment program.

After admission into the Bachelor Degree 3+2 MBA Concurrent Enrollment Program, the student:

1. Must follow the two-year recommended course sequence (see below) for the MBA course component.
2. Must notify the MBA Coordinator immediately if justifiable life circumstances do not allow the student to complete both undergraduate and graduate programs within two years of admission into the program.
3. Must complete ALL bachelor degree graduation requirements in the same semester or prior to completing all MBA graduation requirements.
4. Must submit an intent to graduate and meet with their advisor. This requirement must be met before the published deadline in the semester prior to intended graduation.

All CMU masters-level graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, information literacy, and ethical reasoning. In addition to these campus-wide student learning outcomes, a graduate of this program will be able to:

1. Apply business-specific knowledge within projects individually and/or collaboratively. (Specialized Knowledge/Applied Learning)
2. Employ advanced mathematical, statistical methods, or other analytical processes to address issues within a business environment. (Quantitative Fluency)
3. Create oral and written arguments or explanations, well-grounded in business related theories and methods. (Communication Fluency)
4. Formulate and evaluate hypotheses as related to business problems, issues, concepts, and various perspectives. (Critical Thinking)
5. Synthesize, evaluate, or refine the information base of various business scholarly sources. (Information Literacy)
6. Articulate moral, ethical, legal, or professional challenges within the business environment. (Ethical Reasoning)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Graduate Degree Requirements

The following institutional requirements apply to all CMU graduate-level degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Graduate certificates consist of a minimum of 5 credit hours. Master's degrees consist of a minimum of 30 credit hours. Doctoral degrees consist of a minimum of 60 credit hours.
- All credits in a graduate program must be minimally at the 500-level.
- At least fifty percent of the credit hours must be taken at CMU.
- Students must achieve a 3.00 cumulative GPA or higher in all CMU coursework.
- Students may not apply coursework with a grade lower than a "B" toward graduation requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Graduate Degree Requirements (p. 87)" in this catalog for a complete list of graduation requirements.

- All policies for graduate degrees are outlined in the Graduate Policies and Procedures Manual, Capstone Guidelines Manual, and Thesis and Dissertation Guidelines Manual, all of which are provided on the Graduate Studies website.

Program Specific Requirements

(36 - 39 semester hours, must pass all courses with a grade of "B" or higher.)

Code	Title	Semester Credit Hours
Required MBA Core Courses		
ACCT 500	Managerial Accounting	3
BUGB 500	Advanced Business Law and Ethics	3
CISB 501	Business Analytics	3
ECON 530	Managerial Economics	3
FINA 500	Financial Strategy	3
MANG 501	Operations Management	3
MANG 510	Leading Organizations	3
MANG 590	Business Strategy	3
MARK 500	Marketing Strategy	3
MBA Research Component		
BUGB 593	Capstone	3
Track		
Select at least one of the following tracks:		6 - 9
Professional Track:		
Select six semester hours of 500-level electives from the list below or from 500-level courses in Department of Business as approved by your MBA advisor.		
ACCT 505	Advanced Fraud and Forensic Accounting	
BUGB 510	Global Business	
BUGB 520	Seminar in Current Business Topics	
BUGB 599	Internship	
CISB 505	Advanced Project Management	
CISB 560	Electronic Commerce Systems	
ECON 505	Advanced Econometrics	
HRMA 520	Human Resource Management	
ENTR 550	Entrepreneurship	
MANG 500	Advanced Management Theory	
MANG 540	Advanced Quantitative Methods	
Management Information Systems Track:		
CISB 505	Advanced Project Management	
CISB 560	Electronic Commerce Systems	
Sports Management Track:		
KINE 500	Facility and Equipment Management in Sport and Fitness	
KINE 510	Event and Program Management in Sport and Fitness	
Healthcare Administration Track:		
See CMU MBA Coordinator for details.		
BUGB 575	Healthcare Systems	
BUGB 576	Healthcare by the Numbers	
BUGB 577	Managing Qualitative Issues in Healthcare Organizations	
Other Requirements		
The following two items must be passed in the last spring semester:		
Written Capstone Report - completed within BUGB 593		
Oral Capstone Presentation - completed within BUGB 593		
Total Semester Credit Hours		**36-39**

Suggested Course Plan

Option One

Two-Year Graduation Path, Required of 3+2 Concurrent Program Students

First Year		
Fall Semester		**Semester Credit Hours**
ACCT 500	Managerial Accounting	3
ECON 530	Managerial Economics	3
CISB 501	Business Analytics	3
	Semester Credit Hours	**9**
Spring Semester		
FINA 500	Financial Strategy	3
MANG 510	Leading Organizations	3
MARK 500	Marketing Strategy	3
	Semester Credit Hours	**9**
Second Year		
Fall Semester		
BUGB 500	Advanced Business Law and Ethics	3
MANG 501	Operations Management	3
Elective Course from Track		3
	Semester Credit Hours	**9**
Spring Semester		
MANG 590	Business Strategy	3
BUGB 593	Capstone	3
Elective Course from Track		3
	Semester Credit Hours	**9**
	Total Semester Credit Hours	**36**

Option Two

Three-Year Graduation Path, Not Available to 3+2 Concurrent Program Students

First Year		
Fall Semester		**Semester Credit Hours**
ACCT 500	Managerial Accounting	3
CISB 501	Business Analytics	3
	Semester Credit Hours	**6**
Spring Semester		
FINA 500	Financial Strategy	3
MARK 500	Marketing Strategy	3
	Semester Credit Hours	**6**
Second Year		
Fall Semester		
BUGB 500	Advanced Business Law and Ethics	3
ECON 530	Managerial Economics	3
	Semester Credit Hours	**6**

Spring Semester		
MANG 510	Leading Organizations	3
Elective Course from Track		3
	Semester Credit Hours	**6**
Third Year		
Fall Semester		
MANG 501	Operations Management	3
Elective Course from Track		3
	Semester Credit Hours	**6**
Spring Semester		
MANG 590	Business Strategy	3
BUGB 593	Capstone	3
	Semester Credit Hours	**6**
	Total Semester Credit Hours	**36**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Bachelor of Business Administration in Finance + Master of Business Administration (3+2)

A degree in Finance positions a graduate to be a Chief Financial Officer, Financial Planner, Industrial Broker or Investment Counselor.

An understanding of finance not only prepares students for a variety of interesting and rewarding careers, but also equips them to make better decisions as investors throughout their lives. Virtually every business decision has financial implications and determining whether a particular decision will likely create value or decrease it is the underlying principle of the finance discipline.

Finance graduates are sought to fill a variety of positions that include Financial Analyst, Retail Bank Manager, Cash Manager, Trust Officer, Credit Analyst, Financial Planner, Loan Officer, Real Estate Appraiser, Stockbroker, Insurance Agent, Portfolio Manager, Underwriter, Mortgage Banker, or Pension Fund Manager, to name a few.

For more information about the finance degree, please see (Bachelor of Business Administration and Finance Degree Information).

This program is also the undergraduate component of the 3+2 program, in which students can earn a Bachelor of Business Administration with a Finance Concentration and a Master of Business Administration (MBA, as described below) in five years. Through careful planning and coordination students can complete their four-year degree and their graduate degree simultaneously. For more information please see 3 + 2 MBA Program Information.

The Colorado Mesa University Master of Business Administration (MBA) degree is a challenging program designed to prepare graduates for the changing business world. The degree is awarded after successful completion of 36 semester hours of rigorous study. The program is designed to provide the student with a broad background in business while allowing the student to focus on a specified area of study, if desired. To this end, students acquire knowledge of management operations; an appreciation of the interrelationships involved in business; an understanding of the economic, political and social environment in which businesses function; and behavioral skills that are essential in the manager's role in the implementation of business decisions. The MBA program endeavors to provide an atmosphere conducive to the development of each student's ability to think in a creative manner and to effectively problem solve. The program makes extensive use of lectures, seminars, group projects, case studies and independent research. More information about our MBA Program can be found at MBA Program Information.

Business Administration (BAS)

Degree: Bachelor of Applied Science
Major: Business Administration
Program Code: 3170

The Bachelor of Applied Science in Business Administration combines the technical skills and business proficiency necessary for success in today's business world. A unique program, the BAS allows students who have already earned an associate of applied science degree to build upon their technical specialties with Essential Learning courses and junior and senior level business courses. This allows associate degree holders to

gain a 4-year degree in approximately four additional full-time semesters, depending upon prior coursework.

Business courses to be taken include courses in marketing, promotion, management, accounting, finance, small business management and entrepreneurship. Upon completion of the program, students will be technically and academically prepared for leadership positions in their chosen industries.

Prospective students not holding an associate of applied science degree can begin their college career at CMU in a chosen field of study with a 2-year degree and then progress to a 4-year degree using the BAS. This degree will provide students upward mobility in their area of employment as they move into supervision/management positions.

Formal admission to a BAS program requires completion of the appropriate AAS degree from an accredited institution. Any exceptions to this must be approved in advance by the department BAS advisor and the academic department head. All students must meet with the BAS advisor to plan and schedule all classes.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, students in this major complete a plan of study that fulfills our department mission and requires demonstrated comprehension of program specific learning outcomes. These are as follows:

Mission: As a student-focused teaching and research department, Colorado Mesa University's Business Department prepares students to be sound decision makers and serves businesses in the Rocky Mountain region, the nation, and the world. We strive to develop prepared students who demonstrate strong ethical principles, superior critical thinking, effective communication, and robust business acumen.

Student Learning Outcomes:

1. Apply business knowledge and skills in appropriate business contexts (Critical Thinking) (SLO #1: Critical Thinking/Problem Solving Skills)
2. Transfer knowledge and skills to new business situations. (Critical Thinking) (SLO #1: Critical Thinking/Problem Solving Skills)
3. Analyze business data critically, reason logically, and apply quantitative analysis methods correctly to develop appropriate business conclusions. (Quantitative Fluency) (SLO #1: Critical Thinking/Problem Solving Skills)
4. Analyze business data critically, reason logically, and apply qualitative analysis methods correctly to develop appropriate business conclusions. (Critical Thinking) (SLO #1: Critical Thinking/Problem Solving Skills)
5. Communicate clearly, appropriately, and persuasively to the audience in writing. (Communication Fluency) (SLO #2: Effective Communication Skills)
6. Communicate clearly, appropriately, and persuasively to the audience orally (Communication Fluency) (SLO #2: Effective Communication Skills)
7. Demonstrate an understanding of the role of teams in organizations (Specialized Knowledge/Applied Learning) (SLO #3: Teamwork)
8. Demonstrate behaviors consistent with effective teamwork (Specialized Knowledge/Applied Learning) (SLO #3: Teamwork)
9. Analyze an issue within an ethical framework (Specialized Knowledge/Applied Learning) (SLO #4: Ethical Awareness)
10. Recommend a solution based on an ethical framework (Specialized Knowledge/Applied Learning) (SLO #4: Ethical Awareness)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU Bachelor of Applied Science (BAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Completion of an appropriate Associate of Applied Science (AAS) degree from an accredited institution is required for the BAS; exceptions must be approved by the BAS advisor and department head.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 33 upper-division credits.
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements. The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 113	College Algebra-GTMA1 (or higher) [2]	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences		
Select one Natural Sciences course with a lab		4
Select one Natural Sciences course		3
Total Semester Credit Hours		**31**

[1] Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

[2] This is a 4 credit course. 3 credits apply to the Essential Learning requirements and 1 credit applies to general elective credit.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Program Specific Degree Requirements

(69 semester hours, must maintain a 2.00 cumulative GPA or higher in coursework in this area.)

Code	Title	Semester Credit Hours
Required Business Courses		
ACCT 201	Principles of Financial Accounting	3
CISB 241	Introduction to Business Analysis	3
or STAT 241	Introduction to Business Analysis	
ENTR 300	Small Business and Entrepreneurship	3
or ENTR 450	Entrepreneurship	
FINA 301	Managerial Finance	3
HRMA 371	Human Resource Management	3
HRMA 373	Human Resource Management, Leadership, Ethics, and Social Responsibility	3
MANG 201	Principles of Management	3
MANG 301	Organizational Behavior	3
MANG 471	Operations Management	3
MARK 231	Principles of Marketing	3
CISB 341	Quantitative Decision Making	3
Bachelor of Applied Science Core Courses		
Select 36 semester hours taken as part of a state approved Associate of Applied Science degree		36
Total Semester Credit Hours		**69**

General Electives

All college level courses appearing on final transcript, not listed above to bring total semester hours to 120 and total upper-division hours to 33. 14 semester hours, 12 semester hours must be upper division.

Code	Title	Semester Credit Hours
MATH 113	College Algebra-GTMA1	1
Select additional electives		13
Total Semester Credit Hours		**14**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for her/his intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audits on a regular basis and should discuss questions or concerns with their advisors or academic department heads. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Business Economics, Business Administration (BBA)

Degree: Bachelor of Business Administration
Major: Business Administration
Concentration: Business Economics
Program Code: 3122

The Bachelor of Business Administration (BBA) is designed to prepare students for the challenges of today's organizations, as well as, the business world of tomorrow. The program provides students with the knowledge, skills and abilities to compete in both local and global business environments. Additionally, the program allows for an emphasis in a specialized area such as management, marketing, finance, economics, or hospitality management.

The BBA is a very versatile, flexible and valuable degree. Colorado Mesa's BBA graduates have the ability to earn advanced degrees in business such as the Master of Business Administration – one of the most sought after degrees by employers in today's job market.

Economists are called upon for a variety of tasks including economic analysis of the overall economy as well as a data collection, research analysis, forecasting, planning and consulting. The ability to make decisions at the macroeconomic level as well as use economic modeling tools make this concentration valuable for all industries as well as local, state and federal government entities. The increased emphasis on analytical, quantitative and technology skills sets this concentration apart.

To be admitted to the Bachelor of Business Administration program, certain prerequisites must be satisfied. Please see the Department Head for Business for complete requirements and application form.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, students in this major complete a plan of study that fulfills our department mission and requires demonstrated comprehension of program specific learning outcomes. These are as follows:

Mission: As a student-focused teaching and research department, Colorado Mesa University's Business Department prepares students to be sound decision makers and serves businesses in the Rocky Mountain region, the nation, and the world. We strive to develop prepared students who demonstrate strong ethical principles, superior critical thinking, effective communication, and robust business acumen.

Student Learning Outcomes:

1. Apply business knowledge and skills in appropriate business contexts. (Specialized Knowledge/Applied Learning)
2. Analyze business issues critically utilizing quantitative research methodologies. (Quantitative Fluency)
3. Analyze business issues critically utilizing qualitative research methodologies. (Critical Thinking)
4. Utilize relevant and critically evaluated information in the process of communicating clearly, appropriately, and accurately to the audience in writing. (Communication Fluency, Information Literacy, Specialized Knowledge/Applied Learning)
5. Utilize relevant and critically evaluated information in the process of communicating clearly, appropriately, and accurately to the audience orally. (Communication Fluency, Information Literacy, Specialized Knowledge/Applied Learning)
6. 3.1-Differentiate various functions of teams within organizations. (Specialized Knowledge/Applied Learning)
7. Demonstrate behaviors consistent with effective teamwork. (Specialized Knowledge/Applied Learning)
8. Analyze an issue within an ethical framework. (Personal and Social Responsibility)
9. Recommend a solution based on an ethical framework. (Critical Thinking)
10. Engage in a local, regional, national, and/or international activity that positively impacts society. (Personal and Social Responsibility)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 113	College Algebra-GTMA1 [2]	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [3]		
Select one Natural Sciences course with a lab		4
Select one Natural Sciences course		3
Total Semester Credit Hours		**31**

[1] Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.
[2] This is a 4 credit course. 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.
[3] 7 semester hours, one course must include a lab

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(21 semester hours. These courses plus Essential Learning Math & English requirements must be completed within the student's first 60 hours.)

Code	Title	Semester Credit Hours
ACCT 201	Principles of Financial Accounting	3
ACCT 202	Principles of Managerial Accounting	3
BUGB 211	Business Communications	3
BUGB 231	Survey of Business Law	3
CISB 241	Introduction to Business Analysis	3
or STAT 241	Introduction to Business Analysis	
ECON 201	Principles of Macroeconomics-GTSS1	3
ECON 202	Principles of Microeconomics-GTSS1	3
Total Semester Credit Hours		**21**

Program Specific Degree Requirements

(45 semester hours, must maintain a 2.0 cumulative GPA or higher in coursework in this area.)

Code	Title	Semester Credit Hours
Business Administration Core		
BUGB 440	Business Ethics	3
CISB 210	Fundamentals of Information Systems	3
CISB 341	Quantitative Decision Making	3
FINA 301	Managerial Finance	3

HRMA 371	Human Resource Management	3
MANG 201	Principles of Management	3
MANG 301	Organizational Behavior	3
MANG 471	Operations Management	3
MANG 491	Business Strategy	3
MARK 231	Principles of Marketing	3
Business Economics Nucleus		
ECON 310	Money and Banking	3
ECON 342	Intermediate Macroeconomic Theory	3
ECON 343	Intermediate Microeconomic Theory	3
Select two 3-credit courses from Upper-Division ECON offerings		6
Total Semester Credit Hours		**45**

General Electives

(17 semester hours) It is strongly recommended to meet with a Business Advisor to choose electives that complement the nucleus or choose the nucleus of a second concentration. At least four hours must be upper division. Also include all college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours.

Code	Title	Semester Credit Hours
Select Electives		16
MATH 113	College Algebra-GTMA1	1
Total Semester Credit Hours		**17**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
MATH 113	College Algebra-GTMA1	4
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - Fine Arts		3
	Semester Credit Hours	**16**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
CISB 241 or STAT 241	Introduction to Business Analysis or Introduction to Business Analysis	3
CISB 210	Fundamentals of Information Systems	3
Essential Learning - Natural Science with Lab		4
KINE 100	Health and Wellness	1
KINA Activity		1
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
ACCT 201	Principles of Financial Accounting	3
ECON 201	Principles of Macroeconomics-GTSS1	3
BUGB 211	Business Communications	3
BUGB 231	Survey of Business Law	3
Essential Learning - History		3
	Semester Credit Hours	**15**
Spring Semester		
ECON 202	Principles of Microeconomics-GTSS1	3
ACCT 202	Principles of Managerial Accounting	3
MANG 201	Principles of Management	3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Essential Learning - Humanities		3
	Semester Credit Hours	**16**
Third Year		
Fall Semester		
CISB 341	Quantitative Decision Making	3
ECON 342	Intermediate Macroeconomic Theory	3
HRMA 371	Human Resource Management	3
MARK 231	Principles of Marketing	3
General Elective		3
	Semester Credit Hours	**15**
Spring Semester		
ECON 343	Intermediate Microeconomic Theory	3
FINA 301	Managerial Finance	3
MANG 301	Organizational Behavior	3
Essential Learning - Natural Science		3
General Elective		3
	Semester Credit Hours	**15**
Fourth Year		
Fall Semester		
ECON 310	Money and Banking	3
MANG 471	Operations Management	3
BUGB 440	Business Ethics	3
General Electives (2 courses)		6
	Semester Credit Hours	**15**
Spring Semester		
MANG 491	Business Strategy	3
Upper Division ECON electives (6 Hours)		6
General Electives		4
	Semester Credit Hours	**13**
	Total Semester Credit Hours	**120**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Energy Management/Landman, Business Administration (BBA)

Degree: Bachelor of Business Administration
Major: Business Administration
Concentration: Energy Management/Landman
Program Code: 3118

The Bachelor of Business Administration (BBA) is designed to prepare students for the challenges of today's organizations, as well as the business world of tomorrow. The program provides students with the knowledge, skills and abilities to compete in both the local and global business environments. Additionally, the program allows for an emphasis in a specialized area such as management, marketing, finance, economics, entrepreneurship, insurance, energy management or hospitality management.

The BBA degree can be applied in various fields such as medicine, the arts, sports, and education. In addition to positions in corporate America, nonprofit organizations like hospitals, school systems, and theaters also require people with business training and skills. Graduates of BBA programs hold positions in organizations from entry level manager to chief executive officer.

Colorado Mesa's BBA graduates are entrepreneurs, small business owners, bank vice-presidents, product managers in advertising firms and project and operations managers in manufacturing organizations. The BBA is a very versatile, flexible and valuable degree. Colorado Mesa BBA graduates have great success stories in the business world as well as the ability to earn advanced degrees in business such as the Master of Business Administration – one of the most sought after degrees by employers in today's job market.

Energy Management/Landman professionals provide expertise for energy companies including oil, gas and alternative energy sources, such as solar and wind. These students work both with landowners to acquire or obtain rights to land usage as well as with companies providing expertise in managing the complexities of the energy industry. Job opportunities abound in the energy industry, not only in the United States but also around the world as students in this concentration help provide solutions to the growing world demand for energy.

To be admitted to the Bachelor of Business Administration program, certain prerequisites must be satisfied. Please see the Department Head of Business for complete requirements and application form.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, students in this major complete a plan of study that fulfills our department mission and requires demonstrated comprehension of program specific learning outcomes. These are as follows:

Mission: As a student-focused teaching and research department, Colorado Mesa University's Business Department prepares students to be sound decision makers and serves businesses in the Rocky Mountain region, the nation, and the world. We strive to develop prepared students who demonstrate strong ethical principles, superior critical thinking, effective communication, and robust business acumen.

Student Learning Outcomes:

1. Apply business knowledge and skills in appropriate business contexts. (Specialized Knowledge/Applied Learning)
2. Analyze business issues critically utilizing quantitative research methodologies. (Quantitative Fluency)
3. Analyze business issues critically utilizing qualitative research methodologies. (Critical Thinking)
4. Utilize relevant and critically evaluated information in the process of communicating clearly, appropriately, and accurately to the audience in writing. (Communication Fluency, Information Literacy, Specialized Knowledge/Applied Learning)
5. Utilize relevant and critically evaluated information in the process of communicating clearly, appropriately, and accurately to the audience orally. (Communication Fluency, Information Literacy, Specialized Knowledge/Applied Learning)
6. Differentiate various functions of teams within organizations. (Specialized Knowledge/Applied Learning)
7. Demonstrate behaviors consistent with effective teamwork. (Specialized Knowledge/Applied Learning)
8. Analyze an issue within an ethical framework. (Personal and Social Responsibility)
9. Recommend a solution based on an ethical framework. (Critical Thinking)
10. 4.3-Engage in a local, regional, national, and/or international activity that positively impacts society. (Personal and Social Responsibility)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 113	College Algebra-GTMA1 (or higher) [2]	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences Course		3
Select one Social and Behavioral Sciences Course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences		
Select one Natural Sciences course		3
GEOL 111	Principles of Physical Geology-GTSC1	3
GEOL 111L	Principles of Physical Geology Laboratory-GTSC1	1
Total Semester Credit Hours		**31**

1. Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.
2. MATH 113 is a 4 credit hour course. 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.

Other Lower Division Requirement

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

1. Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(21 semester hours. These courses plus Essential Learning Math & English requirements must be completed within the student's first 60 hours.)

Code	Title	Semester Credit Hours
ACCT 201	Principles of Financial Accounting	3
ACCT 202	Principles of Managerial Accounting	3
BUGB 211	Business Communications	3
BUGB 231	Survey of Business Law	3
CISB 241	Introduction to Business Analysis	3
or STAT 241	Introduction to Business Analysis	
ECON 201	Principles of Macroeconomics-GTSS1	3
ECON 202	Principles of Microeconomics-GTSS1	3
Total Semester Credit Hours		**21**

Program Specific Degree Requirements

(60 semester hours, must maintain a 2.0 cumulative GPA or higher in this area.)

Code	Title	Semester Credit Hours
Business Administration Core		
BUGB 440	Business Ethics	3
CISB 210	Fundamentals of Information Systems	3
CISB 341	Quantitative Decision Making	3
FINA 301	Managerial Finance	3
HRMA 371	Human Resource Management	3
MANG 201	Principles of Management	3
MANG 301	Organizational Behavior	3
MANG 471	Operations Management	3
MANG 491	Business Strategy	3
MARK 231	Principles of Marketing	3
Energy Management/Landman Concentration Courses		
EMGT 101	Energy Management Fundamentals [1]	3
EMGT 201	Land Management Fundamentals [1]	3
EMGT 340	Energy Industry Fundamentals	3
EMGT 350	Energy Development, Transportation, and Markets	3
EMGT 355	Landman Geo-Petro-Engineering	3
EMGT 360	Real Property, Oil and Gas Law	3
EMGT 410	Energy Regulation and Compliance	3
EMGT 440	Energy Land Practices I	3
EMGT 450	Energy Land Practices II	3
EMGT 494	Energy Senior Seminar	3
Total Semester Credit Hours		**60**

[1] Consult with EMGT advisor for possibility of substituting another business course for this one if you possess equivalent work experience.

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours. 2 semester hours

Code	Title	Semester Credit Hours
MATH 113	College Algebra-GTMA1	1
Select additional elective hour		1
Total Semester Credit Hours		**2**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - Social and Behavioral Sciences		3
ENGL 111	English Composition I-GTCO1	3
MATH 113	College Algebra-GTMA1	4
EMGT 101	Energy Management Fundamentals	3
	Semester Credit Hours	**16**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
CISB 210	Fundamentals of Information Systems	3
GEOL 111	Principles of Physical Geology-GTSC1	3
GEOL 111L	Principles of Physical Geology Laboratory-GTSC1	1
Essential Learning - Humanities		3
KINE 100	Health and Wellness	1
KINA Activity		1
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
ACCT 201	Principles of Financial Accounting	3
ECON 201	Principles of Macroeconomics-GTSS1	3
BUGB 211	Business Communications	3
BUGB 231	Survey of Business Law	3
EMGT 201	Land Management Fundamentals	3
	Semester Credit Hours	**15**
Spring Semester		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
ECON 202	Principles of Microeconomics-GTSS1	3
ACCT 202	Principles of Managerial Accounting	3
MANG 201	Principles of Management	3
CISB 241 or STAT 241	Introduction to Business Analysis or Introduction to Business Analysis	3
	Semester Credit Hours	**16**
Third Year		
Fall Semester		
CISB 341	Quantitative Decision Making	3
Essential Learning - Fine Arts		3
EMGT 350	Energy Development, Transportation, and Markets	3
Essential Learning - Natural Science		3
MARK 231	Principles of Marketing	3
	Semester Credit Hours	**15**
Spring Semester		
EMGT 355	Landman Geo-Petro-Engineering	3
EMGT 360	Real Property, Oil and Gas Law	3
Essential Learning - History		3
FINA 301	Managerial Finance	3
MANG 301	Organizational Behavior	3
	Semester Credit Hours	**15**
Fourth Year		
Fall Semester		
EMGT 440	Energy Land Practices I	3
EMGT 410	Energy Regulation and Compliance	3
HRMA 371	Human Resource Management	3
MANG 471	Operations Management	3
General Elective		1
	Semester Credit Hours	**13**
Spring Semester		
BUGB 440	Business Ethics	3
EMGT 340	Energy Industry Fundamentals	3
EMGT 450	Energy Land Practices II	3
EMGT 494	Energy Senior Seminar	3
MANG 491	Business Strategy	3
	Semester Credit Hours	**15**
	Total Semester Credit Hours	**120**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Entrepreneurship, Business Administration (BBA)

Degree: Bachelor of Business Administration
Major: Business Administration
Concentration: Entrepreneurship
Program Code: 3119

The Bachelor of Business Administration (BBA) is designed to prepare students for the challenges of today's organizations, as well as, the business world of tomorrow. The program provides students with the knowledge, skills and abilities to compete in both local and global business environments. Additionally, the program allows for an emphasis in a specialized area such as management, insurance, human resource management, marketing, finance, economics, and hospitality management.

The BBA is a very versatile, flexible and valuable degree. Colorado Mesa's BBA graduates have the ability to earn advanced degrees in business such as the Master of Business Administration – one of the most sought after degrees by employers in today's job market. Small business is a major economic driver of the economy and a concentration in entrepreneurship can provide the knowledge and skills necessary to successfully run a small business. Coursework that provides opportunities to work with local small business owners provides valuable lessons in the reality of operating a small business in today's economy.

To be admitted to the Bachelor of Business Administration program, certain prerequisites must be satisfied. Please see the Department Head of Business for complete requirements and application form.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, students in this major complete a plan of study that fulfills our department mission and requires demonstrated comprehension of program specific learning outcomes. These are as follows:

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Student Learning Outcomes:

1. Apply business knowledge and skills in appropriate business contexts. (Specialized Knowledge/Applied Learning)
2. Analyze business issues critically utilizing quantitative research methodologies. (Quantitative Fluency)
3. Analyze business issues critically utilizing qualitative research methodologies. (Critical Thinking)
4. Utilize relevant and critically evaluated information in the process of communicating clearly, appropriately, and accurately to the audience in writing. (Communication Fluency, Information Literacy, Specialized Knowledge/Applied Learning)
5. Utilize relevant and critically evaluated information in the process of communicating clearly, appropriately, and accurately to the audience orally. (Communication Fluency, Information Literacy, Specialized Knowledge/Applied Learning)
6. Differentiate various functions of teams within organizations. (Specialized Knowledge/Applied Learning)
7. Demonstrate behaviors consistent with effective teamwork. (Specialized Knowledge/Applied Learning)
8. Analyze an issue within an ethical framework. (Personal and Social Responsibility)
9. Recommend a solution based on an ethical framework. (Critical Thinking)
10. 4.3-Engage in a local, regional, national, and/or international activity that positively impacts society. (Personal and Social Responsibility)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
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- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 113	College Algebra-GTMA1 [2]	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [3]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

1. Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.
2. This is a 4 credit course. 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.
3. 7 semester hours, one course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

1. Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(21 semester hours. These courses plus Essential Learning Math & English requirements must be completed within the student’s first 60 hours.)

Code	Title	Semester Credit Hours
ACCT 201	Principles of Financial Accounting	3
ACCT 202	Principles of Managerial Accounting	3

BUGB 211	Business Communications	3
BUGB 231	Survey of Business Law	3
CISB 241	Introduction to Business Analysis	3
or STAT 241	Introduction to Business Analysis	
ECON 201	Principles of Macroeconomics-GTSS1	3
ECON 202	Principles of Microeconomics-GTSS1	3
Total Semester Credit Hours		**21**

Program Specific Requirements

(45-46 semester hours, must maintain 2.0 cumulative GPA or higher in coursework in this area.)

Code	Title	Semester Credit Hours
Business Administration Core		
BUGB 440	Business Ethics	3
CISB 210	Fundamentals of Information Systems	3
CISB 341	Quantitative Decision Making	3
FINA 301	Managerial Finance	3
HRMA 371	Human Resource Management	3
MANG 201	Principles of Management	3
MANG 301	Organizational Behavior	3
MANG 471	Operations Management	3
MANG 491	Business Strategy	3
MARK 231	Principles of Marketing	3
Entrepreneurship Nucleus		
ENTR 300	Small Business and Entrepreneurship	3
ENTR 343	Exploring Entrepreneur Opportunities	3
ENTR 401	Entrepreneurial Finance	3
ENTR 450	Entrepreneurship	3
Select three-four hours from the following:		3-4
CISB 410	Project Management	
CSCI 106	Web Page Design I	
MANG 401	Strategic Consulting	
MANG 442	Experiential Management: Student Run Business	
MARK 432	Advanced Marketing	
MASS 441	Emerging Media	
MUSA 363	Music Industry and Marketing (2-credit course)	
MUSA 365	Entrepreneurship for Creatives (2-credit course)	
Total Semester Credit Hours		**45-46**

General Electives

(16-17 semester hours)

It is strongly recommended to meet with a Business Advisor to choose electives that complement the nucleus or choose the nucleus of a second concentration. At least 4-7 semester hours of upper-division electives are needed to reach the required 40 upper-division semester hours. Also include all college-level courses appearing on your final transcript, not listed above, that will bring your total semester hours to 120 hours.

Code	Title	Semester Credit Hours
MATH 113	College Algebra-GTMA1 [1]	1
Select additional electives		15-16
Total Semester Credit Hours		**16-17**

[1] Also include all college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours.

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - Fine Arts		3
MATH 113	College Algebra-GTMA1	4
ENGL 111	English Composition I-GTCO1	3
	Semester Credit Hours	**16**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
CISB 241 or STAT 241	Introduction to Business Analysis or Introduction to Business Analysis	3
CISB 210	Fundamentals of Information Systems	3
Essential Learning - Natural Science with Lab		4
KINE 100	Health and Wellness	1
KINA Activity		1
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
ACCT 201	Principles of Financial Accounting	3
ECON 201	Principles of Macroeconomics-GTSS1	3
BUGB 211	Business Communications	3
BUGB 231	Survey of Business Law	3
Essential Learning - History		3
	Semester Credit Hours	**15**
Spring Semester		
ECON 202	Principles of Microeconomics-GTSS1	3
ACCT 202	Principles of Managerial Accounting	3
MANG 201	Principles of Management	3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Essential Learning - Humanities		3
	Semester Credit Hours	**16**
Third Year		
Fall Semester		
CISB 341	Quantitative Decision Making	3
ENTR 343	Exploring Entrepreneur Opportunities	3
HRMA 371	Human Resource Management	3
MANG 301	Organizational Behavior	3
MARK 231	Principles of Marketing	3
	Semester Credit Hours	**15**
Spring Semester		
ENTR 300	Small Business and Entrepreneurship	3
Entrepreneurship Elective		3
Essential Learning - Natural Science		3
FINA 301	Managerial Finance	3

General Elective		3
	Semester Credit Hours	**15**
Fourth Year		
Fall Semester		
BUGB 440	Business Ethics	3
ENTR 401	Entrepreneurial Finance	3
General Electives (2 courses)		6
MANG 471	Operations Management	3
	Semester Credit Hours	**15**
Spring Semester		
ENTR 450	Entrepreneurship	3
MANG 491	Business Strategy	3
General Electives (2 courses)		6
Elective		1
	Semester Credit Hours	**13**
	Total Semester Credit Hours	**120**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

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Graduation Process

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- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Finance, Business Administration (BBA)

Degree: Bachelor of Business Administration
Major: Business Administration
Concentration: Finance
Program Code: 3125

The Bachelor of Business Administration (BBA) is designed to prepare students for the challenges of today's organizations, as well as the business world of tomorrow. The program provides students with the knowledge, skills and abilities to compete in both local and global business environments. Additionally, the program allows for an emphasis in a specialized area such as management, marketing, finance, economics, entrepreneurship, energy management, insurance, landman/energy management and hospitality management

The BBA is a very versatile, flexible and valuable degree. Colorado Mesa's BBA graduates have great success stories in the business world as well as the ability to earn advanced degrees in business such as the Master of Business Administration – one of the most sought after degrees by employers in today's job market.

Opportunities for students with a finance concentration include both large and small businesses, government entities, schools and universities, health care, non-profit organizations and individuals. Finance professionals become critical participants not only in day-to-day decision making but also in planning financial strategies to grow a business into the future. Finance professionals also assist people in developing sound personal financial strategies. Finance plays a critical role not only in business but also for each of us personally.

There is also an option of a five year (3+2) program to allow a student to graduate with the BBA in Finance and the Master of Business Administration (MBA). It is intended to assist students to prepare to take the Certified Financial Analyst exam. See the MBA Director for more information.

To be admitted to the Bachelor of Business Administration program, certain prerequisites must be satisfied. Please see the Department Head of Business for complete requirements and application form.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

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3. Analyze business issues critically utilizing qualitative research methodologies. (Critical Thinking)
4. Utilize relevant and critically evaluated information in the process of communicating clearly, appropriately, and accurately to the audience in writing. (Communication Fluency, Information Literacy, Specialized Knowledge/Applied Learning)
5. Utilize relevant and critically evaluated information in the process of communicating clearly, appropriately, and accurately to the audience orally. (Communication Fluency, Information Literacy, Specialized Knowledge/Applied Learning)
6. Differentiate various functions of teams within organizations. (Specialized Knowledge/Applied Learning)
7. Demonstrate behaviors consistent with effective teamwork. (Specialized Knowledge/Applied Learning)
8. Analyze an issue within an ethical framework. (Personal and Social Responsibility)
9. Recommend a solution based on an ethical framework. (Critical Thinking)
10. Engage in a local, regional, national, and/or international activity that positively impacts society. (Personal and Social Responsibility)

Requirements

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- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
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- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

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ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 113	College Algebra-GTMA1 [2]	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [3]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

1. Must receive a grade of “C” or better and must be completed by the time the student has 60 semester hours.
2. This is a 4 credit course. 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.
3. 7 semester hours, one course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1

Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(21 semester hours. These courses plus Essential Learning English and Mathematics requirements must be completed within the student's first 60 hours.)

Code	Title	Semester Credit Hours
ACCT 201	Principles of Financial Accounting	3
ACCT 202	Principles of Managerial Accounting	3
BUGB 211	Business Communications	3
BUGB 231	Survey of Business Law	3
CISB 241	Introduction to Business Analysis	3
or STAT 241	Introduction to Business Analysis	
ECON 201	Principles of Macroeconomics-GTSS1	3
ECON 202	Principles of Microeconomics-GTSS1	3
Total Semester Credit Hours		**21**

Program Specific Degree Requirements

(49 semester hours, must maintain a 2.0 cumulative GPA or higher in coursework in this area.)

Code	Title	Semester Credit Hours
Business Administration Core		
BUGB 440	Business Ethics	3
CISB 210	Fundamentals of Information Systems	3
CISB 341	Quantitative Decision Making	3
FINA 301	Managerial Finance	3
HRMA 371	Human Resource Management	3
MANG 201	Principles of Management	3
MANG 301	Organizational Behavior	3
MANG 471	Operations Management	3
MANG 491	Business Strategy	3
MARK 231	Principles of Marketing	3
Finance Nucleus		
FINA 300	Personal Finance	1
FINA 310	Risk Management	3
FINA 320	Fundamentals of Investments	3
FINA 420	Security Analysis and Portfolio Management	3
FINA 431	International Financial Management	3
FINA 451	Financial Management: Theory and Applications	3
MARK 335	Sales and Sales Management	3
Total Semester Credit Hours		**49**

General Electives

(13 semester hours) It is strongly recommended to meet with a Business Advisor to choose electives that complement the nucleus or choose the nucleus of a second concentration. Also include all college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours.

Code	Title	Semester Credit Hours
MATH 113	College Algebra-GTMA1	1
Select additional electives		12
Total Semester Credit Hours		**13**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
MATH 113	College Algebra-GTMA1	4
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - Fine Arts		3
	Semester Credit Hours	**16**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
CISB/STAT 241	Introduction to Business Analysis	3
CISB 210	Fundamentals of Information Systems	3
Essential Learning - Natural Science with Lab		4
KINE 100	Health and Wellness	1
KINA Activity		1
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
ACCT 201	Principles of Financial Accounting	3
ECON 201	Principles of Macroeconomics-GTSS1	3
BUGB 211	Business Communications	3
BUGB 231	Survey of Business Law	3
Essential Learning - History		3
	Semester Credit Hours	**15**
Spring Semester		
ACCT 202	Principles of Managerial Accounting	3
ECON 202	Principles of Microeconomics-GTSS1	3
MANG 201	Principles of Management	3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Essential Learning - Humanities		3
	Semester Credit Hours	**16**
Third Year		
Fall Semester		
MARK 231	Principles of Marketing	3
FINA 301	Managerial Finance	3
HRMA 371	Human Resource Management	3
MANG 301	Organizational Behavior	3
General Elective		3
	Semester Credit Hours	**15**

Spring Semester		
CISB 341	Quantitative Decision Making	3
FINA 310	Risk Management	3
FINA 320	Fundamentals of Investments	3
MARK 335	Sales and Sales Management	3
Essential Learning - Natural Science		3
	Semester Credit Hours	**15**
Fourth Year		
Fall Semester		
BUGB 440	Business Ethics	3
FINA 420	Security Analysis and Portfolio Management	3
FINA 431	International Financial Management	3
MANG 471	Operations Management	3
General Elective		3
	Semester Credit Hours	**15**
Spring Semester		
FINA 300	Personal Finance	1
FINA 451	Financial Management: Theory and Applications	3
MANG 491	Business Strategy	3
General Electives (2 courses)		6
	Semester Credit Hours	**13**
	Total Semester Credit Hours	**120**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Hospitality Management, Business Administration (BBA)

Degree: Bachelor of Business Administration
Major: Business Administration
Concentration: Hospitality Management
Program Code: 3171

The Bachelor of Business Administration (BBA) is designed to prepare students for the challenges of today's organizations, as well as the business world of tomorrow. The BBA with a concentration in Hospitality Management combines the technical skills and business proficiency necessary for success in today's business world. Business courses to be taken include courses in marketing, promotion, management, accounting, finance, small business management, and entrepreneurship.

The BBA is a very versatile, flexible and valuable degree. Many of Colorado Mesa's BBA graduates have gone on to earn advanced degrees in business such as the Master of Business Administration – one of the most sought after degrees by employers in today's job market.

Potential employment opportunities with this 4-year degree include management in any of the following areas: resort and hotel management, food and beverage management, travel and tourism management health care and education food service management, etc. With the ever expanding world hospitality market, this degree has endless opportunities both within the United States and also in the every-growing global hospitality industry.

To be admitted to the Bachelor of Business Administration program, certain prerequisites must be satisfied. Please see the Department Head of Business for complete requirements and application form.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, students in this major complete a plan of study that fulfills our department mission and requires demonstrated comprehension of program specific learning outcomes. These are as follows:

Mission: As a student-focused teaching and research department, Colorado Mesa University's Business Department prepares students to be sound decision makers and serves businesses in the Rocky Mountain region, the nation, and the world. We strive to develop prepared students who demonstrate strong ethical principles, superior critical thinking, effective communication, and robust business acumen.

Student Learning Outcomes:

1. Apply business knowledge and skills in appropriate business contexts. (Specialized Knowledge/Applied Learning)
2. Analyze business issues critically utilizing quantitative research methodologies. (Quantitative Fluency)
3. Analyze business issues critically utilizing qualitative research methodologies. (Critical Thinking)

4. Utilize relevant and critically evaluated information in the process of communicating clearly, appropriately, and accurately to the audience in writing. (Communication Fluency, Information Literacy, Specialized Knowledge/Applied Learning)
5. Utilize relevant and critically evaluated information in the process of communicating clearly, appropriately, and accurately to the audience orally. (Communication Fluency, Information Literacy, Specialized Knowledge/Applied Learning)
6. Differentiate various functions of teams within organizations. (Specialized Knowledge/Applied Learning)
7. Demonstrate behaviors consistent with effective teamwork. (Specialized Knowledge/Applied Learning)
8. Analyze an issue within an ethical framework. (Personal and Social Responsibility)
9. Recommend a solution based on an ethical framework. (Critical Thinking)
10. Engage in a local, regional, national, and/or international activity that positively impacts society. (Personal and Social Responsibility)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 113	College Algebra-GTMA1 [2]	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [3]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

1. Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.
2. This is a 4 credit course. 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.
3. 7 semester hours, one course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(21 semester hours. These courses plus Essential Learning Math & English requirements must be completed within the student's first 60 hours.)

Code	Title	Semester Credit Hours
ACCT 201	Principles of Financial Accounting	3
ACCT 202	Principles of Managerial Accounting	3
BUGB 211	Business Communications	3
BUGB 231	Survey of Business Law	3
CISB 241	Introduction to Business Analysis	3
or STAT 241	Introduction to Business Analysis	
ECON 201	Principles of Macroeconomics-GTSS1	3
ECON 202	Principles of Microeconomics-GTSS1	3
Total Semester Credit Hours		**21**

Program Specific Requirements

(60 semester hours, must maintain a 2.0 cumulative GPA or higher in coursework in this area.)

Code	Title	Semester Credit Hours
Business Administration Core		
BUGB 440	Business Ethics	3
CISB 210	Fundamentals of Information Systems	3
CISB 341	Quantitative Decision Making	3
FINA 301	Managerial Finance	3
HRMA 371	Human Resource Management	3
MANG 201	Principles of Management	3
MANG 301	Organizational Behavior	3
MANG 471	Operations Management	3
MANG 491	Business Strategy	3
MARK 231	Principles of Marketing	3
Required Concentration Courses		
HMGT 101	Travel Industry I	3
HMGT 317	Hospitality Technology	3
HMGT 370	Managing Quality Service	3
HMGT 417	Applied Hospitality Operations	3
HMGT 450	Strategic Hospitality Sales and Marketing	3
HMGT 470	Hospitality Management Strategies	3
MANG 499	Internship	3-6
Restricted Electives		
Upper Division Business/Hospitality Management Electives [1]		6-9
Total Semester Credit Hours		**57-63**

[1] Recommend HMGT 371 Events Management. Other restricted electives available with permission of advisor. Students must complete a total of 12 credit hours between restricted electives and internships.

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours. 2 semester hours

Code	Title	Semester Credit Hours
MATH 113	College Algebra-GTMA1	1
Select additional elective hour		1
Total Semester Credit Hours		**2**

Suggested Course Plan

Students must complete a minimum of 120 semester credit hours as required for completion of the degree, including satisfactory completion of all required courses. Plan to complete requirements with varying hour options accordingly.

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
MATH 113	College Algebra-GTMA1	4
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - Fine Arts		3
	Semester Credit Hours	**16**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
CISB 241 or STAT 241	Introduction to Business Analysis or Introduction to Business Analysis	3
MARK 231	Principles of Marketing	3
Essential Learning - Natural Science with Lab		4
KINE 100	Health and Wellness	1
KINA Activity		1
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
ACCT 201	Principles of Financial Accounting	3
ECON 201	Principles of Macroeconomics-GTSS1	3
BUGB 211	Business Communications	3
BUGB 231	Survey of Business Law	3
HMGT 101	Travel Industry I	3
	Semester Credit Hours	**15**
Spring Semester		
ACCT 202	Principles of Managerial Accounting	3
ECON 202	Principles of Microeconomics-GTSS1	3
MANG 201	Principles of Management	3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
CISB 210	Fundamentals of Information Systems	3
	Semester Credit Hours	**16**

Third Year		
Fall Semester		
FINA 301	Managerial Finance	3
HMGT 370	Managing Quality Service	3
HRMA 371	Human Resource Management	3
MANG 301	Organizational Behavior	3
Essential Learning - History		3
	Semester Credit Hours	**15**
Spring Semester		
CISB 341	Quantitative Decision Making	3
Essential Learning - Natural Science		3
Upper Division Business/HMGT Elective		3
HMGT 317	Hospitality Technology	3
	Semester Credit Hours	**12**
Fourth Year		
Fall Semester		
BUGB 440	Business Ethics	3
MANG 471	Operations Management	3
HMGT 417	Applied Hospitality Operations	3
Essential Learning - Humanities		3
Upper Division Business/HMGT Elective		3
	Semester Credit Hours	**15**
Spring Semester		
HMGT 450	Strategic Hospitality Sales and Marketing	3
HMGT 470	Hospitality Management Strategies	3
MANG 491	Business Strategy	3
MANG 499	Internship (or take during summer)	3-6
Upper Division Business/HMGT Business Elective		3
General Elective		1
	Semester Credit Hours	**16-19**
	Total Semester Credit Hours	**120-123**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Human Resource Management, Business Administration (BBA)

Degree: Bachelor of Business Administration
Major: Business Administration
Concentration: Human Resource Management
Program Code: 3128

The Bachelor of Business Administration (BBA) is designed to prepare students for the challenges of today's organizations, as well as the business world of tomorrow. The program provides students with the knowledge, skills, and abilities to compete in both local and global business environments. Additionally, the program allows for an emphasis in a specialized area such as management, marketing, finance, economics, entrepreneurship, human resource management, energy management, insurance, or hospitality management.

The BBA is a very versatile, flexible, and valuable degree. Colorado Mesa's BBA graduates have great success stories in the business world as well as the ability to earn advanced degrees in business such as the Master of Business Administration – one of the most sought after degrees by employers in today's job market.

With impending legislation, the need for additional personnel in the area of human resource management will only grow in the future. Become a part of the industry that performs vital functions for all businesses: finding the right people for the right job and then providing training and development for that employee. This concentration has been recognized as aligning with the Society for Human Resource Management curriculum.

To be admitted to the Bachelor of Business Administration program, certain prerequisites must be satisfied. Please see the Department Head of Business for complete requirements and application form.

The 21 semester hours listed under Foundation Courses, as well as the Essential Learning English, Essential Learning Math and Essential Learning Social and Behavioral Sciences Requirement must be completed within the student's first 60 hours.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, students in this major complete a plan of study that fulfills our department mission and requires demonstrated comprehension of program specific learning outcomes. These are as follows:

Mission: As a student-focused teaching and research department, Colorado Mesa University's Business Department prepares students to be sound decision makers and serves businesses in the Rocky Mountain region, the nation, and the world. We strive to develop prepared students who demonstrate strong ethical principles, superior critical thinking, effective communication, and robust business acumen.

Student Learning Outcomes:

1. Apply business knowledge and skills in appropriate business contexts. (Specialized Knowledge/Applied Learning)
2. Analyze business issues critically utilizing quantitative research methodologies. (Quantitative Fluency)
3. Analyze business issues critically utilizing qualitative research methodologies. (Critical Thinking)
4. Utilize relevant and critically evaluated information in the process of communicating clearly, appropriately, and accurately to the audience in writing. (Communication Fluency, Information Literacy, Specialized Knowledge/Applied Learning)
5. Utilize relevant and critically evaluated information in the process of communicating clearly, appropriately, and accurately to the audience orally. (Communication Fluency, Information Literacy, Specialized Knowledge/Applied Learning)
6. Differentiate various functions of teams within organizations. (Specialized Knowledge/Applied Learning)
7. Demonstrate behaviors consistent with effective teamwork. (Specialized Knowledge/Applied Learning)
8. Analyze an issue within an ethical framework. (Personal and Social Responsibility)
9. Recommend a solution based on an ethical framework. (Critical Thinking)
10. Engage in a local, regional, national, and/or international activity that positively impacts society. (Personal and Social Responsibility)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 113	College Algebra-GTMA1 [2]	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [3]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

1. Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.
2. This is a 4 credit course. 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.

[3] 7 semester hours, one course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(21 semester hours. These courses plus Essential Learning English and Mathematics requirements must be completed within the student's first 60 hours.)

Code	Title	Semester Credit Hours
ACCT 201	Principles of Financial Accounting	3
ACCT 202	Principles of Managerial Accounting	3
BUGB 211	Business Communications	3
BUGB 231	Survey of Business Law	3
CISB 241	Introduction to Business Analysis	3
or STAT 241	Introduction to Business Analysis	
ECON 201	Principles of Macroeconomics-GTSS1	3
ECON 202	Principles of Microeconomics-GTSS1	3
Total Semester Credit Hours		**21**

Program Specific Degree Requirements

(45 semester hours, must maintain a 2.0 cumulative GPA or higher in coursework in this area.)

Code	Title	Semester Credit Hours
Business Administration Core		
BUGB 440	Business Ethics	3
CISB 210	Fundamentals of Information Systems	3
CISB 341	Quantitative Decision Making	3
FINA 301	Managerial Finance	3
HRMA 371	Human Resource Management	3
MANG 201	Principles of Management	3
MANG 301	Organizational Behavior	3
MANG 471	Operations Management	3
MANG 491	Business Strategy	3
MARK 231	Principles of Marketing	3
Human Resource Management Nucleus		
MANG 370	Leadership	3
HRMA 372	Employee Recruitment and Selection	3
HRMA 474	Training and Development	3
HRMA 475	Compensation and Reward Systems	3
HRMA 478	Advanced Human Resource Management	3
Total Semester Credit Hours		**45**

General Electives

(17 semester hours) It is strongly recommended to meet with a Business Advisor to choose electives that complement the nucleus or choose the nucleus of a second concentration. At least four hours must be upper division. Also include all college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours.

Code	Title	Semester Credit Hours
MATH 113	College Algebra-GTMA1	1
Select additional electives		16
Total Semester Credit Hours		**17**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
MATH 113	College Algebra-GTMA1	4
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - Fine Arts		3
	Semester Credit Hours	**16**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
CISB/STAT 241	Introduction to Business Analysis	3
CISB 210	Fundamentals of Information Systems	3
Essential Learning - Natural Science with Lab		4
KINE 100	Health and Wellness	1
KINA Activity		1
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
ACCT 201	Principles of Financial Accounting	3
ECON 201	Principles of Macroeconomics-GTSS1	3
MANG 201	Principles of Management	3
BUGB 231	Survey of Business Law	3
Essential Learning - History		3
	Semester Credit Hours	**15**
Spring Semester		
BUGB 211	Business Communications	3
ACCT 202	Principles of Managerial Accounting	3
ECON 202	Principles of Microeconomics-GTSS1	3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Essential Learning - Humanities		3
	Semester Credit Hours	**16**

Third Year		
Fall Semester		
MARK 231	Principles of Marketing	3
MANG 301	Organizational Behavior	3
HRMA 371	Human Resource Management	3
Essential Learning - Natural Science		3
General Elective		3
	Semester Credit Hours	**15**
Spring Semester		
FINA 301	Managerial Finance	3
CISB 341	Quantitative Decision Making	3
MANG 370	Leadership	3
General Electives (2 courses)		6
	Semester Credit Hours	**15**
Fourth Year		
Fall Semester		
BUGB 440	Business Ethics	3
HRMA 372	Employee Recruitment and Selection (8-Week First Mod)	3
HRMA 474	Training and Development (8-Week Second Mod)	3
MANG 471	Operations Management	3
General Elective		3
	Semester Credit Hours	**15**
Spring Semester		
MANG 491	Business Strategy	3
HRMA 475	Compensation and Reward Systems (8-Week First Mod)	3
HRMA 478	Advanced Human Resource Management (8-Week Second Mod)	3
General Electives		4
	Semester Credit Hours	**13**
	Total Semester Credit Hours	**120**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

International Business, Business Administration (BBA)

Degree: Bachelor of Business Administration
Major: Business Administration
Concentration: International Business
Program Code: 3174

The Bachelor of Business Administration (BBA) is designed to prepare students for the challenges of today's organizations, as well as the business world of tomorrow. The program provides students with the knowledge, skills, and abilities to compete in both the local and global business environments. Additionally, the program allows for an emphasis in a specialized area such as management, marketing, finance, economics, entrepreneurship, insurance, energy management or hospitality management. The BBA degree can be applied in various fields such as medicine, the arts, sports, and education. In addition to positions in corporate America, nonprofit organizations like hospitals, school systems, and theatres also require people with business training and skills. Graduates of BBA programs hold positions in organizations from entry level manager to chief executive officer.

Colorado Mesa's BBA graduates are entrepreneurs, small business owners, bank vice-presidents, product managers in advertising firms and project and operations managers in manufacturing organizations. The BBA is a very versatile, flexible and valuable degree. Colorado Mesa BBA graduates have great success stories in the business world as well as the ability to earn advanced degrees in business such as the Master of Business Administration – one of the most sought after degrees by employers in today's job market.

To be admitted to the Bachelor of Business Administration program, certain prerequisites must be satisfied. Please see the Department Head of Business for complete requirements and application form.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, students in this major complete a plan of study that fulfills our department mission and requires demonstrated comprehension of program specific learning outcomes. These are as follows:

Mission: As a student-focused teaching and research department, Colorado Mesa University's Business Department prepares students to be sound decision makers and serves businesses in the Rocky Mountain region, the nation, and the world. We strive to develop prepared students

who demonstrate strong ethical principles, superior critical thinking, effective communication, and robust business acumen.

Student Learning Outcomes:

1. Apply business knowledge and skills in appropriate business contexts. (Specialized Knowledge/Applied Learning)
2. Analyze business issues critically utilizing quantitative research methodologies. (Quantitative Fluency)
3. Analyze business issues critically utilizing qualitative research methodologies. (Critical Thinking)
4. Utilize relevant and critically evaluated information in the process of communicating clearly, appropriately, and accurately to the audience in writing. (Communication Fluency, Information Literacy, Specialized Knowledge/Applied Learning)
5. Utilize relevant and critically evaluated information in the process of communicating clearly, appropriately, and accurately to the audience orally. (Communication Fluency, Information Literacy, Specialized Knowledge/Applied Learning)
6. Differentiate various functions of teams within organizations. (Specialized Knowledge/Applied Learning)
7. Demonstrate behaviors consistent with effective teamwork. (Specialized Knowledge/Applied Learning)
8. Analyze an issue within an ethical framework. (Personal and Social Responsibility)
9. Recommend a solution based on an ethical framework. (Critical Thinking)
10. Engage in a local, regional, national, and/or international activity that positively impacts society. (Personal and Social Responsibility)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 113	College Algebra-GTMA1 [2]	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [3]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

1. Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.
2. This is a 4 credit course. 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.
3. 7 semester hours, one course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(21 semester hours. These courses plus Essential Learning Math & English requirements must be completed within the student's first 60 hours.)

Code	Title	Semester Credit Hours
ACCT 201	Principles of Financial Accounting	3
ACCT 202	Principles of Managerial Accounting	3
BUGB 211	Business Communications	3
BUGB 231	Survey of Business Law	3
CISB 241	Introduction to Business Analysis	3
or STAT 241	Introduction to Business Analysis	
ECON 201	Principles of Macroeconomics-GTSS1	3
ECON 202	Principles of Microeconomics-GTSS1	3
Total Semester Credit Hours		**21**

Program Specific Degree Requirements

(45 semester hours, must maintain a 2.0 cumulative GPA or higher in coursework in this area.)

Code	Title	Semester Credit Hours
Business Administration Core		
BUGB 440	Business Ethics	3
CISB 210	Fundamentals of Information Systems	3
CISB 341	Quantitative Decision Making	3
FINA 301	Managerial Finance	3
HRMA 371	Human Resource Management	3
MANG 201	Principles of Management	3
MANG 301	Organizational Behavior	3
MANG 471	Operations Management	3
MANG 491	Business Strategy	3
MARK 231	Principles of Marketing	3
International Business Nucleus		
BUGB 435	Emerging Markets	3
CISB 460	Electronic Commerce Systems	3
ECON 420	International Economics	3
or ECON 310	Money and Banking	
or ECON 342	Intermediate Macroeconomic Theory	
FINA 431	International Financial Management	3
BUGB 401	International Business	3
Total Semester Credit Hours		**45**

General Electives

(17 semester hours) It is strongly recommended to meet with a Business Advisor to choose electives that complement the nucleus or choose the nucleus of a second concentration. At least seven hours must be upper division. Also include all college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours.

Code	Title	Semester Credit Hours
MATH 113	College Algebra-GTMA1	1
Select additional electives		16
Total Semester Credit Hours		**17**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - Fine Arts		3
ENGL 111	English Composition I-GTCO1	3
MATH 113	College Algebra-GTMA1	4
	Semester Credit Hours	**16**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
CISB 241 or STAT 241	Introduction to Business Analysis or Introduction to Business Analysis	3
CISB 210	Fundamentals of Information Systems	3
Essential Learning - Natural Science with Lab		4
KINE 100	Health and Wellness	1
KINA Activity		1
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
ACCT 201	Principles of Financial Accounting	3
ECON 201	Principles of Macroeconomics-GTSS1	3
BUGB 211	Business Communications	3
BUGB 231	Survey of Business Law	3
Essential Learning - History		3
	Semester Credit Hours	**15**
Spring Semester		
ACCT 202	Principles of Managerial Accounting	3
ECON 202	Principles of Microeconomics-GTSS1	3
MANG 201	Principles of Management	3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Essential Learning - Humanities		3
	Semester Credit Hours	**16**

Third Year		
Fall Semester		
CISB 341	Quantitative Decision Making	3
CISB 460	Electronic Commerce Systems	3
Essential Learning - Natural Science		3
General Elective		3
MARK 231	Principles of Marketing	3
	Semester Credit Hours	**15**
Spring Semester		
HRMA 371	Human Resource Management	3
FINA 301	Managerial Finance	3
MANG 301	Organizational Behavior	3
General Electives (2 courses)		6
	Semester Credit Hours	**15**
Fourth Year		
Fall Semester		
BUGB 440	Business Ethics	3
FINA 431	International Financial Management	3
General Electives (2 courses)		6
MANG 471	Operations Management	3
	Semester Credit Hours	**15**
Spring Semester		
MANG 491	Business Strategy	3
BUGB 435	Emerging Markets	3
ECON 420 or ECON 310 or ECON 342	International Economics or Money and Banking or Intermediate Macroeconomic Theory	3
BUGB 401	International Business	3
General Elective		1
	Semester Credit Hours	**13**
	Total Semester Credit Hours	**120**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Management, Business Administration (BBA)

Degree: Bachelor of Business Administration
Major: Business Administration
Concentration: Management
Program Code: 3126

The Bachelor of Business Administration (BBA) is designed to prepare students for the challenges of today's organizations, as well as the business world of tomorrow. The program provides students with the knowledge, skills, and abilities to compete in both the local and global business environments. Additionally, the program allows for an emphasis in a specialized area such as management, marketing, finance, economics, entrepreneurship, insurance, energy management or hospitality management.

The BBA degree can be applied in various fields such as medicine, the arts, sports, and education. In addition to positions in corporate America, nonprofit organizations like hospitals, school systems, and theatres also require people with business training and skills. Graduates of BBA programs hold positions in organizations from entry level manager to chief executive officer.

Colorado Mesa's BBA graduates are entrepreneurs, small business owners, bank vice-presidents, product managers in advertising firms and project and operations managers in manufacturing organizations. The BBA is a very versatile, flexible and valuable degree. Colorado Mesa BBA graduates have great success stories in the business world as well as the ability to earn advanced degrees in business such as the Master of Business Administration – one of the most sought after degrees by employers in today's job market.

To be admitted to the Bachelor of Business Administration program, certain prerequisites must be satisfied. Please see the Department Head of Business for complete requirements and application form.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, students in this major complete a plan of study that fulfills our department mission and requires demonstrated comprehension of program specific learning outcomes. These are as follows:

Mission: As a student-focused teaching and research department, Colorado Mesa University's Business Department prepares students to

be sound decision makers and serves businesses in the Rocky Mountain region, the nation, and the world. We strive to develop prepared students who demonstrate strong ethical principles, superior critical thinking, effective communication, and robust business acumen.

Student Learning Outcomes:

1. Apply business knowledge and skills in appropriate business contexts. (Specialized Knowledge/Applied Learning)
2. Analyze business issues critically utilizing quantitative research methodologies. (Quantitative Fluency)
3. Analyze business issues critically utilizing qualitative research methodologies. (Critical Thinking)
4. Utilize relevant and critically evaluated information in the process of communicating clearly, appropriately, and accurately to the audience in writing. (Communication Fluency, Information Literacy, Specialized Knowledge/Applied Learning
5. Utilize relevant and critically evaluated information in the process of communicating clearly, appropriately, and accurately to the audience orally. (Communication Fluency, Information Literacy, Specialized Knowledge/Applied Learning)
6. Differentiate various functions of teams within organizations. (Specialized Knowledge/Applied Learning)
7. Demonstrate behaviors consistent with effective teamwork. (Specialized Knowledge/Applied Learning)
8. Analyze an issue within an ethical framework. (Personal and Social Responsibility)
9. Recommend a solution based on an ethical framework. (Critical Thinking)
10. Engage in a local, regional, national, and/or international activity that positively impacts society. (Personal and Social Responsibility)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 113	College Algebra-GTMA1 [2]	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [3]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

1. Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.
2. This is a 4 credit course. 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.
3. 7 semester hours, one course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(21 semester hours. These courses plus Essential Learning Math & English requirements must be completed within the student's first 60 hours.)

Code	Title	Semester Credit Hours
ACCT 201	Principles of Financial Accounting	3
ACCT 202	Principles of Managerial Accounting	3
BUGB 211	Business Communications	3
BUGB 231	Survey of Business Law	3
CISB 241	Introduction to Business Analysis	3
or STAT 241	Introduction to Business Analysis	
ECON 201	Principles of Macroeconomics-GTSS1	3
ECON 202	Principles of Microeconomics-GTSS1	3
Total Semester Credit Hours		**21**

Program Specific Degree Requirements

(45 semester hours, must maintain a 2.0 cumulative GPA or higher in coursework in this area.)

Code	Title	Semester Credit Hours
Business Administration Core		
BUGB 440	Business Ethics	3
CISB 210	Fundamentals of Information Systems	3
CISB 341	Quantitative Decision Making	3
FINA 301	Managerial Finance	3
HRMA 371	Human Resource Management	3
MANG 201	Principles of Management	3
MANG 301	Organizational Behavior	3
MANG 471	Operations Management	3
MANG 491	Business Strategy	3
MARK 231	Principles of Marketing	3
Management Nucleus		
CISB 410	Project Management	3
ENTR 300	Small Business and Entrepreneurship	3
or ENTR 450	Entrepreneurship	
MANG 370	Leadership	3
Total Semester Credit Hours		**39**

Code	Title	Semester Credit Hours
Restricted Electives		
Two of the following courses:		6
ACCT 311	Advanced Managerial Accounting	
BUGB 401	International Business	
CISB 305	Solving Problems Using Spreadsheets	
CISB 306	Solving Problems Using Databases	
CISB 470	Management of Information Systems	
ENTR 401	Entrepreneurial Finance	
FINA 310	Risk Management	
HRMA 372	Employee Recruitment and Selection	
MANG 410	Effective Workplace Communication	
MANG 499	Internship	
Total Semester Credit Hours		**6**

General Electives

(17 semester hours) It is strongly recommended to meet with a Business Advisor to choose electives that complement the nucleus or choose the nucleus of a second concentration. At least four hours must be upper division. Also include all college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours.

Code	Title	Semester Credit Hours
MATH 113	College Algebra-GTMA1	1
Select additional electives		16
Total Semester Credit Hours		**17**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
MATH 113	College Algebra-GTMA1	4
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - Fine Arts		3
	Semester Credit Hours	**16**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
CISB/STAT 241	Introduction to Business Analysis	3
CISB 210	Fundamentals of Information Systems	3
Essential Learning - Natural Science with Lab		4
KINE 100	Health and Wellness	1
	Semester Credit Hours	**14**

Second Year		
Fall Semester		
ACCT 201	Principles of Financial Accounting	3
ECON 201	Principles of Macroeconomics-GTSS1	3
BUGB 211	Business Communications	3
BUGB 231	Survey of Business Law	3
Essential Learning - History		3
	Semester Credit Hours	**15**
Spring Semester		
ACCT 202	Principles of Managerial Accounting	3
ECON 202	Principles of Microeconomics-GTSS1	3
MANG 201	Principles of Management	3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Essential Learning - Humanities		3
	Semester Credit Hours	**16**
Third Year		
Fall Semester		
CISB 341	Quantitative Decision Making	3
HRMA 371	Human Resource Management	3
MARK 231	Principles of Marketing	3
Essential Learning - Natural Science		3
General Elective		3
	Semester Credit Hours	**15**
Spring Semester		
FINA 301	Managerial Finance	3
MANG 301	Organizational Behavior	3
MANG 370	Leadership	3
Management or General Electives (2 courses)		6
	Semester Credit Hours	**15**
Fourth Year		
Fall Semester		
BUGB 440	Business Ethics	3
CISB 410	Project Management	3
MANG 471	Operations Management	3
Management or General Electives (2 courses)		6
	Semester Credit Hours	**15**
Spring Semester		
ENTR 300 or ENTR 450	Small Business and Entrepreneurship or Entrepreneurship	3
MANG 491	Business Strategy	3
Management or General Elective		3
General Electives		4
KINA Activity		1
	Semester Credit Hours	**14**
	Total Semester Credit Hours	**120**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

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Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Business Analytics, Business Administration (BBA)

Degree: Bachelor of Business Administration
Major: Business Administration
Concentration: Business Analytics
Program Code: 3173

The Bachelor of Business Administration (BBA) is designed to prepare students for the challenges of today's organizations, as well as the business world of tomorrow. The program provides students with the knowledge, skills, and abilities to compete in both local and global business environments. Additionally, the program allows for an emphasis in a specialized area such as management, marketing, finance, economics, entrepreneurship, insurance, energy management and hospitality management.

The BBA is a very versatile, flexible and valuable degree. Colorado Mesa BBA graduates have great success stories in the business world as well as the ability to earn advanced degrees in business such as the Master of Business Administration – one of the most sought after degrees by employers in today's job market.

To be admitted to the Bachelor of Business Administration program, certain prerequisites must be satisfied. Please see the Department Head of Business for complete requirements and application form.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, students in this major complete a plan of study that fulfills our department mission and requires demonstrated comprehension of program specific learning outcomes. These are as follows:

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Student Learning Outcomes:

1. Apply business knowledge and skills in appropriate business contexts. (Specialized Knowledge/Applied Learning)
2. Analyze business issues critically utilizing quantitative research methodologies. (Quantitative Fluency)
3. Analyze business issues critically utilizing qualitative research methodologies. (Critical Thinking)\ \
4. Utilize relevant and critically evaluated information in the process of communicating clearly, appropriately, and accurately to the audience in writing. (Communication Fluency, Information Literacy, Specialized Knowledge/Applied Learning)
5. Utilize relevant and critically evaluated information in the process of communicating clearly, appropriately, and accurately to the audience orally. (Communication Fluency, Information Literacy, Specialized Knowledge/Applied Learning)
6. Differentiate various functions of teams within organizations. (Specialized Knowledge/Applied Learning)
7. Demonstrate behaviors consistent with effective teamwork. (Specialized Knowledge/Applied Learning)
8. Analyze an issue within an ethical framework. (Personal and Social Responsibility)
9. Recommend a solution based on an ethical framework. (Critical Thinking)
10. Engage in a local, regional, national, and/or international activity that positively impacts society. (Personal and Social Responsibility)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 113	College Algebra-GTMA1 [2]	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [3]		
Select one Natural Sciences course with a lab		4
Select one Natural Sciences course		3
Total Semester Credit Hours		**31**

[1] Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

[2] This is a 4 credit course. 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.

[3] 7 semester hours, one course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(21 semester hours. These courses plus Essential Learning Math & English requirements must be completed within the student's first 60 hours.)

Code	Title	Semester Credit Hours
ACCT 201	Principles of Financial Accounting	3
ACCT 202	Principles of Managerial Accounting	3
BUGB 211	Business Communications	3
BUGB 231	Survey of Business Law	3
CISB 241	Introduction to Business Analysis	3
or STAT 241	Introduction to Business Analysis	
ECON 201	Principles of Macroeconomics-GTSS1	3
ECON 202	Principles of Microeconomics-GTSS1	3
Total Semester Credit Hours		**21**

Program Specific Degree Requirements

(48 semester hours, must maintain a 2.0 cumulative GPA or higher in coursework in this area.)

Code	Title	Semester Credit Hours
Business Administration Core		
BUGB 440	Business Ethics	3
CISB 210	Fundamentals of Information Systems	3
CISB 341	Quantitative Decision Making	3
FINA 301	Managerial Finance	3
HRMA 371	Human Resource Management	3
MANG 201	Principles of Management	3
MANG 301	Organizational Behavior	3
MANG 471	Operations Management	3
MANG 491	Business Strategy	3
MARK 231	Principles of Marketing	3
Business Analytics Nucleus		
CISB 205	Advanced Business Software	3
CISB 305	Solving Problems Using Spreadsheets	3
CISB 306	Solving Problems Using Databases	3
CISB 342	Data Mining and Visualization	3
CISB 343	Big Data Analytics	3
ECON 415	Econometrics	3
Total Semester Credit Hours		**48**

General Electives

(14 semester hours) It is strongly recommended to meet with a Business Advisor to choose electives that complement the nucleus or choose the nucleus of a second concentration. At least seven hours must be upper division. Also include all college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours.

Code	Title	Semester Credit Hours
MATH 113	College Algebra-GTMA1	1
Select additional electives		13
Total Semester Credit Hours		**14**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
CISB 205	Advanced Business Software	3
ENGL 111	English Composition I-GTCO1	3
MATH 113	College Algebra-GTMA1	4
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - Fine Arts		3
	Semester Credit Hours	**16**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
CISB/STAT 241	Introduction to Business Analysis	3
CISB 210	Fundamentals of Information Systems	3
KINE 100	Health and Wellness	1
KINA Activity		1
Essential Learning - Natural Science with Lab		4
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
ACCT 201	Principles of Financial Accounting	3
ECON 201	Principles of Macroeconomics-GTSS1	3
BUGB 211	Business Communications	3
BUGB 231	Survey of Business Law	3
Essential Learning - History		3
	Semester Credit Hours	**15**
Spring Semester		
ACCT 202	Principles of Managerial Accounting	3
ECON 202	Principles of Microeconomics-GTSS1	3
MANG 201	Principles of Management	3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Essential Learning - Humanities		3
	Semester Credit Hours	**16**

Third Year		
Fall Semester		
MARK 231	Principles of Marketing	3
CISB 305	Solving Problems Using Spreadsheets	3
CISB 341	Quantitative Decision Making	3
Essential Learning - Natural Science		3
Essential Learning - Social and Behavioral Sciences		3
	Semester Credit Hours	**15**
Spring Semester		
HRMA 371	Human Resource Management	3
FINA 301	Managerial Finance	3
MANG 301	Organizational Behavior	3
CISB 306	Solving Problems Using Databases	3
General Elective		3
	Semester Credit Hours	**15**
Fourth Year		
Fall Semester		
BUGB 440	Business Ethics	3
CISB 342	Data Mining and Visualization	3
CISB 343	Big Data Analytics	3
MANG 471	Operations Management	3
General Elective		3
	Semester Credit Hours	**15**
Spring Semester		
ECON 415	Econometrics	3
MANG 491	Business Strategy	3
General Electives		7
	Semester Credit Hours	**13**
	Total Semester Credit Hours	**120**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Marketing, Business Administration (BBA)

Degree: Bachelor of Business Administration
Major: Business Administration
Concentration: Marketing
Program Code: 3127

The Bachelor of Business Administration (BBA) is designed to prepare students for the challenges of today's organizations, as well as the business world of tomorrow. The program provides students with the knowledge, skills and abilities to compete in both local and global business environments. Additionally, the program allows for an emphasis in a specialized area such as management, marketing, finance, economics or hospitality management. The BBA is a very versatile, flexible and valuable degree. Colorado Mesa's BBA graduates have the ability to earn advanced degrees in business such as the Master of Business Administration – one of the most sought after degrees by employers in today's job market. Marketing is a critical part of today's business. Classes in promotion, consumer behavior, sales and sales management, creating marketing materials, and advanced marketing will place marketing students on a path to an exciting, fast-paced career in marketing for large and small businesses, health care and nonprofits to name a few areas. Selling skills are essential for all areas of business providing marketing students with an important skill to build their resume.

To be admitted to the Bachelor of Business Administration program, certain prerequisites must be satisfied. Please see the Department Head of Business for complete requirements and application form.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, students in this major complete a plan of study that fulfills our department mission and requires demonstrated comprehension of program specific learning outcomes. These are as follows:

Mission: As a student-focused teaching and research department, Colorado Mesa University's Business Department prepares students to be sound decision makers and serves businesses in the Rocky Mountain region, the nation, and the world. We strive to develop prepared students who demonstrate strong ethical principles, superior critical thinking, effective communication, and robust business acumen.

Student Learning Outcomes:

1. Apply business knowledge and skills in appropriate business contexts. (Specialized Knowledge/Applied Learning)
2. Analyze business issues critically utilizing quantitative research methodologies. (Quantitative Fluency)
3. Analyze business issues critically utilizing qualitative research methodologies. (Critical Thinking)
4. Utilize relevant and critically evaluated information in the process of communicating clearly, appropriately, and accurately to the audience in writing. (Communication Fluency, Information Literacy, Specialized Knowledge/Applied Learning)
5. Utilize relevant and critically evaluated information in the process of communicating clearly, appropriately, and accurately to the audience orally. (Communication Fluency, Information Literacy, Specialized Knowledge/Applied Learning)
6. Differentiate various functions of teams within organizations. (Specialized Knowledge/Applied Learning)
7. Demonstrate behaviors consistent with effective teamwork. (Specialized Knowledge/Applied Learning)
8. Analyze an issue within an ethical framework. (Personal and Social Responsibility)
9. Recommend a solution based on an ethical framework. (Critical Thinking)
10. Engage in a local, regional, national, and/or international activity that positively impacts society. (Personal and Social Responsibility)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 113	College Algebra-GTMA1 [2]	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [3]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

1. Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.
2. This is a 4 credit course. 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.
3. 7 semester hours, one course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(21 semester hours. These courses plus and Essential Learning Math & English requirements must be completed within the student's first 60 hours.)

Code	Title	Semester Credit Hours
ACCT 201	Principles of Financial Accounting	3
ACCT 202	Principles of Managerial Accounting	3
BUGB 211	Business Communications	3
BUGB 231	Survey of Business Law	3
CISB 241	Introduction to Business Analysis	3
or STAT 241	Introduction to Business Analysis	
ECON 201	Principles of Macroeconomics-GTSS1	3
ECON 202	Principles of Microeconomics-GTSS1	3
Total Semester Credit Hours		**21**

Program Specific Degree Requirements

(48 semester hours, must maintain a 2.0 cumulative GPA or higher in coursework in this area.)

Code	Title	Semester Credit Hours
Business Administration Core		
BUGB 440	Business Ethics	3
CISB 210	Fundamentals of Information Systems	3
CISB 341	Quantitative Decision Making	3
FINA 301	Managerial Finance	3
HRMA 371	Human Resource Management	3
MANG 201	Principles of Management	3
MANG 301	Organizational Behavior	3
MANG 471	Operations Management	3
MANG 491	Business Strategy	3
MARK 231	Principles of Marketing	3
Marketing Nucleus		
MARK 325	Consumer Behavior	3
MARK 332	Promotion	3
MARK 335	Sales and Sales Management	3
MARK 350	Marketing Research	3
MARK 375	Digital Marketing	3
MARK 432	Advanced Marketing	3
Total Semester Credit Hours		**48**

General Electives

(14 semester hours) It is strongly recommended to meet with a Business Advisor to choose electives that complement the nucleus or choose the nucleus of a second concentration. At least one hour must be upper division. Also include all college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours.

Code	Title	Semester Credit Hours
MATH 113	College Algebra-GTMA1	1
Select additional electives		13
Total Semester Credit Hours		**14**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
MATH 113	College Algebra-GTMA1	4
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - Fine Arts		3
	Semester Credit Hours	**16**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
CISB/STAT 241	Introduction to Business Analysis	3
CISB 210	Fundamentals of Information Systems	3
KINE 100	Health and Wellness	1
Essential Learning - Natural Science with Lab		4
	Semester Credit Hours	**14**
Second Year		
Fall Semester		
ACCT 201	Principles of Financial Accounting	3
ECON 201	Principles of Macroeconomics-GTSS1	3
BUGB 211	Business Communications	3
BUGB 231	Survey of Business Law	3
Essential Learning - History		3
	Semester Credit Hours	**15**
Spring Semester		
ACCT 202	Principles of Managerial Accounting	3
ECON 202	Principles of Microeconomics-GTSS1	3
MANG 201	Principles of Management	3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Essential Learning - Humanities		3
	Semester Credit Hours	**16**
Third Year		
Fall Semester		
MARK 231	Principles of Marketing	3

FINA 301	Managerial Finance	3
HRMA 371	Human Resource Management	3
MANG 301	Organizational Behavior	3
General Elective		3
	Semester Credit Hours	**15**
Spring Semester		
MARK 332	Promotion	3
MARK 335	Sales and Sales Management	3
MARK 350	Marketing Research	3
Essential Learning - Natural Science		3
General Elective		3
	Semester Credit Hours	**15**
Fourth Year		
Fall Semester		
BUGB 440	Business Ethics	3
CISB 341	Quantitative Decision Making	3
MANG 471	Operations Management	3
MARK 325	Consumer Behavior	3
MARK 375	Digital Marketing	3
	Semester Credit Hours	**15**
Spring Semester		
MARK 432	Advanced Marketing	3
MANG 491	Business Strategy	3
General Electives		7
KINA Activity		1
	Semester Credit Hours	**14**
	Total Semester Credit Hours	**120**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Business Administration, Liberal Arts (AA)

Degree: Associate of Arts
Major: Liberal Arts
Emphasis: Business Administration
Program Code: 2141

The Associate of Arts (AA) degree is designed for students who intend to continue their education and obtain a baccalaureate degree. The AA is also an appropriate choice for students who will take upper division coursework in the arts, humanities, or social and behavioral sciences. The degree program includes the Colorado Statewide Essential Learning Core and meets the lower-division Essential Learning requirements at most public institutions in Colorado. The Business Administration AA degree, in addition to providing students with Essential Learning coursework, is useful in giving students an overview of the business world.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Locate, gather and organize information on an assigned business topic. (Specialized Knowledge)
2. Recognize mathematical concepts and methods in relation to business issues. (Quantitative Fluency)
3. Communicate clearly and appropriately basic business information. (Communication Fluency)
4. Describe beginning business concepts in appropriate business contexts. (Critical Thinking)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU or CMU Tech Associate of Arts (AA) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours total.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade of "C" or higher must be earned in all Essential Learning courses in order to be accepted for transfer under the Colorado Core Transfer Consortium General Education curriculum or gtPathways, Colorado's guaranteed transfer program.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 15 semester credit hours for an AA degree. A maximum of 6 of the 15 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 113	College Algebra-GTMA1 (or higher) [2]	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
ECON 201	Principles of Macroeconomics-GTSS1	3
ECON 202	Principles of Microeconomics-GTSS1	3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

1. Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.
2. This is a 4 credit course. 3 credits apply to the Essential Learning requirements and 1 credit applies to general elective credit.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Total Semester Credit Hours		**2**

Program Specific Degree Requirements

(21 semester hours)

Code	Title	Semester Credit Hours
Required Courses		
ACCT 201	Principles of Financial Accounting	3
ACCT 202	Principles of Managerial Accounting	3
BUGB 101	Introduction to Business	3
BUGB 211	Business Communications	3
BUGB 231	Survey of Business Law	3
Select one of the following courses:		3
STAT 200	Probability and Statistics-GTMA1	
CISB 241	Introduction to Business Analysis [1]	
CISB 101	Business Information Technology	3
Total Semester Credit Hours		**21**

1. Requires additional prerequisites not listed here.

General Electives

(6 semester hours)

Code	Title	Semester Credit Hours
MATH 113	College Algebra-GTMA1	1
Select additional electives		5
Total Semester Credit Hours		**6**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
BUGB 101	Introduction to Business	3
MATH 113	College Algebra-GTMA1	4
Essential Learning - Natural Science without Lab		3
KINE 100	Health and Wellness	1
Wellness Requirement – KINA Activities Course		1
	Semester Credit Hours	**15**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
CISB 101	Business Information Technology	3
Essential Learning - Natural Science with Lab		4
Essential Learning - History		3
Essential Learning - Humanities		3
	Semester Credit Hours	**16**
Second Year		
Fall Semester		
ACCT 201	Principles of Financial Accounting	3
ECON 201	Principles of Macroeconomics-GTSS1	3
STAT 200 or CISB 241	Probability and Statistics-GTMA1 or Introduction to Business Analysis	3
Essential Learning - Fine Arts		3
General Elective		3
	Semester Credit Hours	**15**
Spring Semester		
ACCT 202	Principles of Managerial Accounting	3
ECON 202	Principles of Microeconomics-GTSS1	3
BUGB 211	Business Communications	3
BUGB 231	Survey of Business Law	3
General Elective		2
	Semester Credit Hours	**14**
	Total Semester Credit Hours	**60**

Students that intend to continue with Colorado Mesa University should take ESSL 290 and ESSL 200 during the final semester of their Associate of Arts work.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for her/his intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Business (Minor)

Minor: Business
Program Code: M130

The minor in Business is designed to prepare students to enter the world of business with the basic business skills needed to contribute more efficiently and effectively in their place of work. A foundation in accounting, management, marketing and workplace communication, provides students an opportunity to build a foundation in business. Additionally, courses in management, marketing, accounting, finance, and computer information systems allow students to choose classes that best fit their program goals. A business minor coupled with a non-business major can increase the employment opportunities available in a variety of areas.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.

- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(24 semester hours)

- Before entering the minor in Business, students are presumed to have basic communication and computer literacy, including working knowledge or word processing and spreadsheet software. Students lacking this basic knowledge are responsible for attaining it through coursework, tutorials, or workshops.

Code	Title	Semester Credit Hours
Required Courses		
ACCT 201	Principles of Financial Accounting	3
MANG 201	Principles of Management	3
BUGB 211	Business Communications	3
or MANG 410	Effective Workplace Communication	
MARK 231	Principles of Marketing	3
Select four courses of the following: [1]		12
ACCT 202	Principles of Managerial Accounting	
BUGB 231	Survey of Business Law	
CISB 305	Solving Problems Using Spreadsheets [2]	
ECON 201	Principles of Macroeconomics-GTSS1	
ENTR 300	Small Business and Entrepreneurship	
ENTR 450	Entrepreneurship [2]	
FINA 301	Managerial Finance [2]	
HRMA 371	Human Resource Management	
MANG 301	Organizational Behavior	
MANG 410	Effective Workplace Communication	
MARK 325	Consumer Behavior	
Total Semester Credit Hours		**24**

[1] At least two, and in some cases three courses, must be upper division. If a student takes BUGB 211 rather than MANG 410, then the student must take three upper-division courses in the choices listed above.

[2] Requires additional course prerequisites beyond those required for the Minor.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the "Intent to Graduate" form.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Economics (Minor)

Minor: Economics
Program Code: M710

The minor in Economics is designed to prepare students with an overview of the basics of economics. Coursework includes the principle classes in Macroeconomics and Microeconomics plus the Intermediate Macroeconomics and Microeconomics courses.

The analytical skills plus the economics coursework required prepares students with the critical thinking and problem solving skills needed in today's world as well as the ability to apply economic rationale in the decision making process.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total

number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(21 semester hours)

Code	Title	Semester Credit Hours
Required Courses		
CISB 241	Introduction to Business Analysis [1]	3
or STAT 241	Introduction to Business Analysis	
ECON 201	Principles of Macroeconomics-GTSS1	3
ECON 202	Principles of Microeconomics-GTSS1	3
ECON 342	Intermediate Macroeconomic Theory	3
ECON 343	Intermediate Microeconomic Theory	3
Select 6 semester hours of additional Upper Division hours in ECON		6
Total Semester Credit Hours		**21**

[1] CISB 241 and STAT 241 have prerequisites not required for this minor (specifically, MATH 113). Please refer to the course descriptions.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the "Intent to Graduate" form.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Entrepreneurship (Minor)

Minor: Entrepreneurship
Program Code: M150

The minor in Entrepreneurship is designed to equip students with the basic knowledge and skills needed to successfully operate their own small business. A foundation in accounting, management, marketing, and finance provides students an opportunity to build a working knowledge of business. The entrepreneurship minor is intended for students in disciplines other than business who wish to begin small businesses in their major area. The minor will provide students with the basics needed as they face the exciting challenges of small business ownership.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with

your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(18 semester hours)

- Students pursuing a BBA may not minor in Entrepreneurship. See policy for minors in the catalog.
- Before entering the minor in Entrepreneurship students are presumed to have basic communication and computer literacy, including a working knowledge of word processing and spreadsheet software. Students lacking this basic knowledge are responsible for attaining it through course work, tutorials, or workshops.

Code	Title	Semester Credit Hours
Required Courses		
ENTR 300	Small Business and Entrepreneurship	3
ENTR 343	Exploring Entrepreneur Opportunities	3
ENTR 401	Entrepreneurial Finance	3
ENTR 450	Entrepreneurship	3
MARK 231	Principles of Marketing	3
Select one of the following:		3
CISB 410	Project Management	
CSCI 106	Web Page Design I	
MANG 401	Strategic Consulting	
MANG 442	Experiential Management: Student Run Business	
MARK 432	Advanced Marketing	
MASS 441	Emerging Media	
MUSA 363	Music Industry and Marketing	
MUSA 365	Entrepreneurship for Creatives	
Total Semester Credit Hours		**18**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the "Intent to Graduate" form.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

International Business (Minor)

Minor: International Business
Program Code: M754

The International Business Minor is designed for students who would like to combine business studies with their interest in the Spanish language and Hispanic culture. This multidisciplinary minor provides students the opportunity to develop required skills to operate in multinational firms and global markets. Students will be able to build their understanding of how language and cultural knowledge affects their global mindset, thus preparing them for positions in international companies. This minor may enhance students' employment opportunities in organizations with a worldwide presence (NGO or for-profits).

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.

- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(24 semester hours)

Code	Title	Semester Credit Hours
MANG 201	Principles of Management	3
MANG 301	Organizational Behavior	3
BUGB 401	International Business	3
BUGB 435	Emerging Markets	3
FLAS 300	Spanish Composition and Grammar [1]	3
FLAS 304	Advanced Oral Production and Composition	3
FLAS 312	History and Culture of Latin America	3
1 additional 300- or 400-level FLAS or FLAV courses [2]		3
Total Semester Credit Hours		**24**

[1] The prerequisites for FLAS 300 can be waived with consent of professor for those with sufficient proficiency. Interested students can also take a placement test with the FLAS 300 professor to determine proficiency.

[2] Certain 300- and 400-level courses have prerequisites.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student’s responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar’s Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar’s Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the “Intent to Graduate” form.

If a student’s petition for graduation is denied, it will be their responsibility to consult the Registrar’s Office regarding next steps.

Entrepreneurship (Professional Certificate)

Award: Professional Certificate
Program of Study: Entrepreneurship
Program Code: 1171

The Certificate in Entrepreneurship is designed to expose students and prospective entrepreneurs to the beginning knowledge and skills needed to examine and evaluate entrepreneurship opportunities. The certificate will provide students with an overview of information they would encounter if they went on to earn the minor in Entrepreneurship or BBA concentration in Entrepreneurship, each of which more fully prepares people to operate their own small business.

For more information on what you can do with this major, visit Career Services’ What to Do with a Major? resource.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU Professional Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Primarily 300-400 level courses.
- At least fifty percent of the credit hours must be taken at CMU.
- 2.00 cumulative GPA or higher in all CMU coursework.
- A grade lower than “C” in the program of study will not be counted toward meeting the certificate’s requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(9 semester hours)

Code	Title	Semester Credit Hours
Required Courses		
ENTR 300	Small Business and Entrepreneurship	3

ENTR 343	Exploring Entrepreneur Opportunities	3
ENTR 401	Entrepreneurial Finance	3
Total Semester Credit Hours		**9**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENTR 300	Small Business and Entrepreneurship	3
	Semester Credit Hours	**3**
Spring Semester		
ENTR 343	Exploring Entrepreneur Opportunities	3
	Semester Credit Hours	**3**
Second Year		
Fall Semester		
ENTR 401	Entrepreneurial Finance	3
	Semester Credit Hours	**3**
	Total Semester Credit Hours	**9**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Human Resource Management (Professional Certificate)

Award: Professional Certificate
Program of Study: Human Resource Management
Program Code: 1178

The Human Resource Management Certificate is designed to prepare students to practice HR Management in a variety of organizations. The curriculum is aligned with the Society for Human Resource Management (SHRM) Body of Competency and Knowledge (BoCK). Students will gain technical HR knowledge and expertise to demonstrate mastery of critical HR functions including: HR Strategic Planning, Talent Acquisition, Employee Engagement & Retention, Training and Development, Total Rewards, Structure of the HR Function, Organizational Effectiveness & Development, Workforce Management. HR in the Global Context, Diversity & Inclusion, Risk Management, Corporate Social Responsibility, and U.S. Employment Law & Regulations.

Throughout the program, students will be given opportunities to participate in hands-on learning activities. The program can be completed in one year and can be completed fully online or as a hybrid of on-campus and online courses.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, critical thinking, and personal and social responsibility. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Apply key principles of human resource management (HRM), such as employment laws, staffing, training development, compensation, safety health, employee labor relations, ethics, and employee performance management. (Communication Fluency, Specialized knowledge/Applied Learning, Personal and Social Responsibility)
2. Analyze and forecast organizational staffing requirements and their outcomes. (Communication Fluency, Quantitative Fluency, Specialized Knowledge/Applied Learning)
3. Evaluate the functions of training and development in organizations, with emphasis on learning theory, learning objectives, instructional methods, needs assessment, evaluation of training effectiveness, and emerging concepts in workplace education. (Communication Fluency, Specialized Knowledge/Applied Learning)
4. Design strategic compensation systems with emphasis on seniority; merit, incentive, and person-focused pay; job evaluation; internal and external equity; benefits administration; international, executive, and flexible workforce compensation systems; and diversity and ethical considerations. (Quantitative Fluency, Specialized Knowledge/Applied Learning, Personal and Social Responsibility)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course

sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional requirements apply to all CMU Professional Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Primarily 300-400 level courses.
- At least fifty percent of the credit hours must be taken at CMU.
- 2.00 cumulative GPA or higher in all CMU coursework.
- A grade lower than "C" in the program of study will not be counted toward meeting the certificate's requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Requirements

(12 semester hours)

Code	Title	Semester Credit Hours
HRMA 371	Human Resource Management [1]	3
HRMA 372	Employee Recruitment and Selection	3
HRMA 474	Training and Development	3
HRMA 475	Compensation and Reward Systems	3
Total Semester Credit Hours		**12**

[1] Prerequisite course/s may be required, increasing the number of hours for the program. Please consult with a discipline specific faculty for more information.

Suggested Course Plan

First Year		
Spring Semester		**Semester Credit Hours**
HRMA 371	Human Resource Management	3
	Semester Credit Hours	**3**
Fall Semester		
HRMA 372	Employee Recruitment and Selection	3
HRMA 474	Training and Development	3
	Semester Credit Hours	**6**
Second Year		
Spring Semester		
HRMA 475	Compensation and Reward Systems	3
	Semester Credit Hours	**3**
	Total Semester Credit Hours	**12**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Supervision (Technical Certificate)

Award: Technical Certificate
Program of Study: Supervision
Program Code: 1172

The Certificate in Supervision is designed to expose students and business managers to the knowledge and skills needed to supervise employees in the workplace. The certificate will provide students with an overview of information they would encounter if they went on to earn the

Management Concentration in the BBA, which more fully prepares people to manage business functions and employees.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(9 semester hours)

Code	Title	Semester Credit Hours
Introduction to Business		
Complete one of the following options:		3
Option 1:		
BUGB 101	Introduction to Business	
Option 2:		
BUGB 101A	Introduction to Business: Part 1 of 3	
BUGB 101B	Introduction to Business: Part 2 of 3	
BUGB 101C	Introduction to Business: Part 3 of 3	
Principles of Management		
Complete one of the following options:		3
Option 1:		
MANG 201	Principles of Management	
Option 2:		
MANG 201A	Principles of Management : Part 1 of 3	
MANG 201B	Principles of Management: Part 2 of 3	
MANG 201C	Principles of Management: Part 3 of 3	
Business Communications		
Complete one of the following options:		3
Option 1:		
BUGB 211	Business Communications	
Option 2:		
BUGB 211A	Business Communications: Part 1 of 3	
BUGB 211B	Business Communications: Part 2 of 3	
BUGB 211C	Business Communications: Part 3 of 3	
Total Semester Credit Hours		**9**

Suggested Course Plan

First Year

Fall Semester		**Semester Credit Hours**
Select one of the following:		3
Option 1:		
BUGB 101	Introduction to Business	
Option 2:		
BUGB 101A	Introduction to Business: Part 1 of 3	
BUGB 101B	Introduction to Business: Part 2 of 3	
BUGB 101C	Introduction to Business: Part 3 of 3	
	Semester Credit Hours	**3**
Spring Semester		
Select one of the following:		3
Option 1:		
MANG 201	Principles of Management	
Option 2:		
MANG 201A	Principles of Management : Part 1 of 3	
MANG 201B	Principles of Management: Part 2 of 3	
MANG 201C	Principles of Management: Part 3 of 3	
	Semester Credit Hours	**3**

Second Year

Fall Semester		
Select one of the following:		3
Option 1:		
BUGB 211	Business Communications	
Option 2:		

BUGB 211A	Business Communications: Part 1 of 3	
BUGB 211B	Business Communications: Part 2 of 3	
BUGB 211C	Business Communications: Part 3 of 3	
	Semester Credit Hours	**3**
	Total Semester Credit Hours	**9**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Chemistry

Program Description

Chemistry

Chemistry is the systematic study of matter in the universe. It is often referred to as the "central science" in that it acts as the connection between many other disciplines including physics, biology, engineering, earth science, environmental science and medicine. Chemistry students gain a unique perspective on the composition, properties and reactivity of the substances surrounding them. These students gain problem-solving skills that can be applied in chemistry labs, in other classes and in day-to-day life. By having chemistry faculty with a diverse range of specialties (analytical chemistry, biochemistry, inorganic chemistry, physical chemistry and organic chemistry), our chemistry majors have the opportunity to learn about each of these fields. Recent graduates have been successful in the chemical industry and in secondary education. Many have continued their education in graduate and professional schools (including Yale University, University of Illinois Urbana-Champaign, University of Denver, University of Florida, University of Utah, and the University of Washington).

Opportunities for student research are numerous and the program is well equipped with modern chemical instrumentation, including a 400 MHz FT-NMR spectrometer, FT-IR and UV-visible spectrophotometers, high performance liquid and ion chromatographs and an inductively-coupled plasma atomic emission spectrometer.

As the "central science," a strong background in chemistry is a wonderful complement to many other majors. A chemistry minor should be considered by any student who is interested in a career in science, medicine, patent law or technical sales.

Biochemistry

We offer a concentration in biochemistry within the chemistry degree. Biochemistry students build a strong foundation in chemistry and apply their knowledge to problems in chemistry and biology. Students learn to critically analyze chemical structures and chemical and biochemical reactions, skills which are necessary for success in fields of biochemistry, medicinal chemistry, medicine, pharmacy and chemical biology. By taking upper division courses in chemistry and biology, biochemistry majors develop a strong understanding of both subjects. Through research under a chemistry or biology faculty member, students can enhance their laboratory and critical thinking skills.

Contact Information

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Programs of Study

Bachelors/Minors

- Biochemistry, Chemistry (BS) (p. 249)
- Chemistry (BS) (p. 252)
- Chemistry (Minor) (p. 255)

Biochemistry, Chemistry (BS)

Degree: Bachelor of Science
Major: Chemistry
Concentration: Biochemistry
Program Code: 3476

Biochemistry students build a strong foundation in chemistry and apply their knowledge to problems in chemistry and biology. Students learn to critically analyze chemical structures and chemical and biochemical reactions, skills which are necessary for success in fields of biochemistry, medicinal chemistry, medicine, pharmacy and chemical biology. By taking upper division courses in chemistry and biology, biochemistry majors develop a strong understanding of both subjects. Through research under a chemistry or biology faculty member, students can enhance their laboratory and critical thinking skills.

The program culminates in two courses designed to bridge students' coursework with their entry into the workforce, a medical degree program, or graduate school. The Advanced Laboratory course helps students to synthesize knowledge from various chemical disciplines and apply it to solving chemical problems in a practical manner. This is similar to the type of process that they are likely to experience after graduation. Our Communicating in the World of Chemistry course couples with our Advanced Laboratory course to help students express themselves in a professional manner while applying for and entering their new positions.

Colorado Mesa University graduates have been successful in finding jobs in the pharmaceutical industry and in secondary education, as well as being placed in graduate, pharmacy and medical schools.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Demonstrate fluency in the concepts from major fields of chemistry (organic, physical, analytical, and biochemistry.) (Specialized Knowledge)
2. Utilize mathematics to solve chemical and biological problems. (Quantitative Fluency)
3. Employ proper experimental techniques. (Applied Learning)
4. Interpret chemical and biological information from peer-reviewed publications. (Critical Thinking)
5. Communicate chemical and biological topics effectively, both verbally and in writing. (Communication Fluency)
6. Demonstrate a solid understanding of genetics, cellular, and molecular biology. (Specialized Knowledge)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 151	Calculus I-GTMA1 [2]	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3

Social and Behavioral Sciences	
Select one Social and Behavioral Sciences course	3
Select one Social and Behavioral Sciences course	3
Fine Arts	
Select one Fine Arts course	3
Natural Sciences	
Select one Natural Sciences course with a lab	4
Select one Natural Sciences course	3
Total Semester Credit Hours	**31**

[1] Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

[2] This is a 5 credit course. 3 credits apply to the Essential Learning requirements and 2 credits apply to Foundation.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(21 semester hours, must earn a grade of "C" or better in each course)

Code	Title	Semester Credit Hours
BIOL 105	Attributes of Living Systems-GTSC1	3
BIOL 105L	Attributes of Living Systems Laboratory-GTSC1	1
MATH 151	Calculus I-GTMA1	2
MATH 152	Calculus II	5
Select one of the following sets of courses:		5
PHYS 131 & 131L	Fundamental Mechanics-GTSC1 and Fundamental Mechanics Laboratory-GTSC1	
PHYS 111 & 111L	General Physics I-GTSC1 and General Physics I Laboratory-GTSC1	
Select one of the following sets of courses:		5
PHYS 132 & 132L	Electromagnetism and Optics-GTSC1 and Electromagnetism and Optics Laboratory-GTSC1	
PHYS 112 & 112L	General Physics II-GTSC1 and General Physics II Laboratory-GTSC1	
Total Semester Credit Hours		**21**

Program Specific Degree Requirements

(54 semester hours, must pass all courses with a grade of "C" or higher)

Code	Title	Semester Credit Hours
Core Courses		
CHEM 131	General Chemistry I-GTSC1	4
CHEM 131L	General Chemistry Laboratory I-GTSC1	1
CHEM 132	General Chemistry II-GTSC1	4
CHEM 132L	General Chemistry Laboratory II-GTSC1	1
CHEM 301	Analytical Chemistry	3
CHEM 301L	Analytical Chemistry Laboratory	1
CHEM 311	Organic Chemistry I	4
CHEM 311L	Organic Chemistry I Laboratory	1
CHEM 312	Organic Chemistry II	4
CHEM 312L	Organic Chemistry II Laboratory	1
CHEM 341	Advanced Laboratory I	2
CHEM 442	Communicating in the World of Chemistry	1
Biochemistry Concentration Courses		
CHEM 315	Biochemistry I	3
CHEM 316	Biochemistry II	3
CHEM 317L	Biochemistry Laboratory	1
CHEM 321	Physical Chemistry I	3
BIOL 301	Principles of Genetics	3
BIOL 301L	Principles of Genetics Laboratory	1
BIOL 302	Cellular Biology	3
BIOL 371L	Laboratory Investigations in Cellular and Molecular Biology	3
Total Semester Credit Hours		**47**

Code	Title	Semester Credit Hours
Restricted Electives		
Select 7 semester hours from the following list: [1]		7
CHEM 322	Physical Chemistry II	
CHEM 351	Inorganic Chemistry I	
CHEM 352	Inorganic Chemistry II	
CHEM 396	Topics	
CHEM 397	Structured Research	
CHEM 421	Advanced Organic Chemistry I	
CHEM 422	Advanced Organic Chemistry II	
CHEM 431 & 431L	Instrumental Analysis and Instrumental Analysis Laboratory	
CHEM 487	Formal Research	
CHEM 494	Seminar	
CHEM 496	Topics	
CHEM 497	Structured Research	
BIOL 310 & 310L	Developmental Biology and Developmental Biology Laboratory	
BIOL 343	Immunology	
BIOL 350 & 350L	Microbiology and Microbiology Laboratory	

BIOL 352 & 352L	Human Physiology and Human Physiology Laboratory
BIOL 387	Structured Research
BIOL 403	Evolution
BIOL 425	Molecular Genetics
BIOL 441	Endocrinology
BIOL 442	Pharmacology
BIOL 487	Advanced Research
Total Semester Credit Hours	**7**

[1] No more than 4 semester hours can come from CHEM 397, CHEM 487, CHEM 497, BIOL 387, or BIOL 487

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours. 8 semester hours.

Code	Title	Semester Credit Hours
Select electives		8
Total Semester Credit Hours		**8**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
CHEM 131 & 131L	General Chemistry I-GTSC1 and General Chemistry Laboratory I-GTSC1	5
Essential Learning - History		3
ENGL 111	English Composition I-GTCO1	3
Essential Learning - Natural Science with Lab		4
	Semester Credit Hours	**15**
Spring Semester		
CHEM 132 & 132L	General Chemistry II-GTSC1 and General Chemistry Laboratory II-GTSC1	5
ENGL 112	English Composition II-GTCO2	3
BIOL 105 & 105L	Attributes of Living Systems-GTSC1 and Attributes of Living Systems Laboratory-GTSC1	4
Essential Learning - Social and Behavioral Sciences		3
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
MATH 151	Calculus I-GTMA1	5
CHEM 311 & 311L	Organic Chemistry I and Organic Chemistry I Laboratory	5
Select one of the following:		5
PHYS 131 & 131L	Fundamental Mechanics-GTSC1 and Fundamental Mechanics Laboratory-GTSC1	
PHYS 111 & 111L	General Physics I-GTSC1 and General Physics I Laboratory-GTSC1	
	Semester Credit Hours	**15**
Spring Semester		
MATH 152	Calculus II	5
CHEM 312 & 312L	Organic Chemistry II and Organic Chemistry II Laboratory	5
Select one of the following:		5
PHYS 132 & 132L	Electromagnetism and Optics-GTSC1 and Electromagnetism and Optics Laboratory-GTSC1	
PHYS 112 & 112L	General Physics II-GTSC1 and General Physics II Laboratory-GTSC1	
	Semester Credit Hours	**15**
Third Year		
Fall Semester		
CHEM 315	Biochemistry I	3
CHEM 317L	Biochemistry Laboratory	1
BIOL 302	Cellular Biology	3
Essential Learning - Natural Science		3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
	Semester Credit Hours	**14**
Spring Semester		
CHEM 316	Biochemistry II	3
CHEM 301 & 301L	Analytical Chemistry and Analytical Chemistry Laboratory	4
BIOL 301 & 301L	Principles of Genetics and Principles of Genetics Laboratory	4
KINE 100	Health and Wellness	1
KINA Activity		1
General Elective		2
	Semester Credit Hours	**15**
Fourth Year		
Fall Semester		
CHEM 321	Physical Chemistry I	3
BIOL 371L	Laboratory Investigations in Cellular and Molecular Biology	3
Restricted Electives		4
Essential Learning - Fine Arts		3
Essential Learning - Social and Behavioral Sciences		3
	Semester Credit Hours	**16**
Spring Semester		
CHEM 341	Advanced Laboratory I	2
CHEM 442	Communicating in the World of Chemistry	1
Essential Learning - Humanities		3
Restricted Elective		3
General Electives (2 courses)		6
	Semester Credit Hours	**15**
	Total Semester Credit Hours	**120**

Advising and Graduation Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Chemistry (BS)

Degree: Bachelor of Science
Major: Chemistry
Program Code: 3470

Chemistry students gain a unique perspective on the composition, properties, and reactivity of the substances surrounding them. These students gain problem-solving skills that can be applied in chemistry labs, in other classes, and in day-to-day life. By having chemistry faculty with a diverse range of specialties (analytical, inorganic, physical, organic, and biochemistry), chemistry majors have the opportunity to learn about each of these fields, and they are provided with a wide variety of research opportunities. Students are trained to independently use modern instrumentation, including a 300 MHz nuclear magnetic resonance spectrometer liquid chromatograph, a mass spectrometer, and an ICP atomic emission spectrophotometer. The programs culminate in two courses designed to bridge students' coursework with their entry into the workforce or graduate school. In Advanced Laboratory, students synthesize knowledge from various chemical disciplines and apply it to solving chemical problems in a practical manner. Our Communicating in the World of Chemistry course couples with our Advanced Laboratory course to help students express themselves in a professional manner while applying for and entering their new positions.

Colorado Mesa graduates have jobs in the chemical industry and secondary education, and have gone to graduate, pharmacy, and medical schools. Our graduates have completed Ph.D. programs at the University of Denver, Arizona State University, University of Utah and University of Wyoming in chemistry, biomedical engineering and environmental engineering.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Demonstrate fluency in the concepts from the major fields of chemistry (inorganic, organic, physical, and analytical). (Specialized Knowledge)
2. Utilize mathematics to solve chemical problems. (Quantitative Fluency)
3. Employ proper experimental techniques. (Applied Learning)
4. Interpret chemical information from peer-reviewed publications. (Critical Thinking)
5. Communicate chemical topics effectively, both verbally and in writing. (Communication Fluency)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 151	Calculus I-GTMA1 [2]	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences		
Select one Natural Sciences course with a lab		4
Select one Natural Sciences course		3
Total Semester Credit Hours		**31**

[1] Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

[2] This is a 5 credit course. 3 credits apply to the Essential Learning requirements and 2 credits apply to foundation.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(17 semester hours, must pass all courses with a grade of “C” or higher)

Code	Title	Semester Credit Hours
MATH 151	Calculus I-GTMA1	2
MATH 152	Calculus II	5
Select one of the following sets of courses:		5
PHYS 131 & 131L	Fundamental Mechanics-GTSC1 and Fundamental Mechanics Laboratory-GTSC1	
PHYS 111 & 111L	General Physics I-GTSC1 and General Physics I Laboratory-GTSC1	
Select one of the following sets of courses:		5
PHYS 132 & 132L	Electromagnetism and Optics-GTSC1 and Electromagnetism and Optics Laboratory-GTSC1	
PHYS 112 & 112L	General Physics II-GTSC1 and General Physics II Laboratory-GTSC1	
Total Semester Credit Hours		**17**

Program Specific Degree Requirements

(51 semester hours, must pass all courses with a grade of “C” or higher)

Code	Title	Semester Credit Hours
Core Courses		
CHEM 131	General Chemistry I-GTSC1	4
CHEM 131L	General Chemistry Laboratory I-GTSC1	1
CHEM 132	General Chemistry II-GTSC1	4
CHEM 132L	General Chemistry Laboratory II-GTSC1	1
CHEM 301	Analytical Chemistry	3
CHEM 301L	Analytical Chemistry Laboratory	1
CHEM 311	Organic Chemistry I	4
CHEM 311L	Organic Chemistry I Laboratory	1
CHEM 312	Organic Chemistry II	4
CHEM 312L	Organic Chemistry II Laboratory	1
CHEM 341	Advanced Laboratory I	2
CHEM 442	Communicating in the World of Chemistry	1
Additional Chemistry Courses		
CHEM 321	Physical Chemistry I	3
CHEM 322	Physical Chemistry II	3
CHEM 351	Inorganic Chemistry I	3
CHEM 431	Instrumental Analysis	3
CHEM 431L	Instrumental Analysis Laboratory	1
MATH 253	Calculus III	4
Total Semester Credit Hours		**44**

[1] Must pass all courses with a grade of “C” or higher

Code	Title	Semester Credit Hours
Restricted Electives		
Select 7 semester hours from the following list: [1]		7
CHEM 300	Environmental Chemistry	

CHEM 315	Biochemistry I
CHEM 316	Biochemistry II
CHEM 317L	Biochemistry Laboratory
CHEM 352	Inorganic Chemistry II
CHEM 396	Topics
CHEM 397	Structured Research
CHEM 421	Advanced Organic Chemistry I
CHEM 422	Advanced Organic Chemistry II
CHEM 487	Formal Research
CHEM 494	Seminar
CHEM 496	Topics
Total Semester Credit Hours	**7**

[1] No more than 4 semester hours can come from CHEM 397 or CHEM 487.

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours, including 40 hours of upper division hours. 15 semester hours; 3 hours of upper division may be needed.

Code	Title	Semester Credit Hours
Select 15 hours of electives		15
Total Semester Credit Hours		**15**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
CHEM 131 & 131L	General Chemistry I-GTSC1 and General Chemistry Laboratory I-GTSC1	5
ENGL 111	English Composition I-GTCO1	3
MATH 151	Calculus I-GTMA1	5
Essential Learning - Natural Science		3
	Semester Credit Hours	**16**
Spring Semester		
CHEM 132 & 132L	General Chemistry II-GTSC1 and General Chemistry Laboratory II-GTSC1	5
ENGL 112	English Composition II-GTCO2	3
MATH 152	Calculus II	5
Essential Learning - Natural Science with Lab		4
	Semester Credit Hours	**17**
Second Year		
Fall Semester		
MATH 253	Calculus III	4
CHEM 311 & 311L	Organic Chemistry I and Organic Chemistry I Laboratory	5
Select one of the following:		5
PHYS 131 & 131L	Fundamental Mechanics-GTSC1 and Fundamental Mechanics Laboratory-GTSC1	
PHYS 111 & 111L	General Physics I-GTSC1 and General Physics I Laboratory-GTSC1	
KINE 100	Health and Wellness	1
	Semester Credit Hours	**15**
Spring Semester		
CHEM 312 & 312L	Organic Chemistry II and Organic Chemistry II Laboratory	5
Select one of the following:		5
PHYS 132 & 132L	Electromagnetism and Optics-GTSC1 and Electromagnetism and Optics Laboratory-GTSC1	
PHYS 112 & 112L	General Physics II-GTSC1 and General Physics II Laboratory-GTSC1	
CHEM 301 & 301L	Analytical Chemistry and Analytical Chemistry Laboratory	4
	Semester Credit Hours	**14**
Third Year		
Fall Semester		
CHEM 321	Physical Chemistry I	3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Essential Learning - History		3
Essential Learning - Fine Arts		3
General Elective		3
	Semester Credit Hours	**16**
Spring Semester		
CHEM 322	Physical Chemistry II	3
CHEM 351	Inorganic Chemistry I	3
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - Humanities		3
General Elective		3
	Semester Credit Hours	**15**
Fourth Year		
Fall Semester		
CHEM 431 & 431L	Instrumental Analysis and Instrumental Analysis Laboratory	4
Essential Learning - Social and Behavioral Sciences		3
KINA Activity		1
Restricted Elective		3
General Elective		3
	Semester Credit Hours	**14**
Spring Semester		
CHEM 341	Advanced Laboratory I	2
CHEM 442	Communicating in the World of Chemistry	1
Restricted Electives		4
General Electives (2 courses)		6
	Semester Credit Hours	**13**
	Total Semester Credit Hours	**120**

Advising and Graduation Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic

department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
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- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Chemistry (Minor)

Minor: Chemistry
Program Code: M410

Chemistry can be described as the systematic study of matter in the universe. It is often referred to as the "central science" in that it acts as the connection between many other disciplines including physics, biology, engineering, earth science, environmental science and medicine. As such, a strong background in chemistry is a wonderful complement to many other majors. A chemistry minor should be considered by any student who is interested in a career in science, medicine, patent law, forensics, or technical sales.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(24 semester hours)

Code	Title	Semester Credit Hours
Required Courses		
CHEM 131	General Chemistry I-GTSC1	4
CHEM 131L	General Chemistry Laboratory I-GTSC1	1
CHEM 132	General Chemistry II-GTSC1	4
CHEM 132L	General Chemistry Laboratory II-GTSC1	1
CHEM 311	Organic Chemistry I	4
CHEM 311L	Organic Chemistry I Laboratory	1
CHEM 301	Analytical Chemistry	3
CHEM 301L	Analytical Chemistry Laboratory	1
Total Semester Credit Hours		**19**

Code	Title	Semester Credit Hours
Restricted Electives		
Choose 5 semester hours of upper division chemistry courses		5
Total Semester Credit Hours		**5**

Advising and Graduation Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their

advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the "Intent to Graduate" form.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Civil Engineering

Program Description

Colorado Mesa University and the University of Colorado Boulder partner to deliver a civil engineering program in its entirety in Grand Junction. Civil engineers design and supervise the construction of the buildings and infrastructure that make up our world - roads, bridges, tunnels, skyscrapers, transit systems, water treatment facilities, and offshore structures. They solve problems and meet challenges such as pollution, clean drinking water, climate change, energy and transportation needs, urban development, and community planning.

Students completing the program will be awarded a Bachelor of Science in Civil Engineering degree from CU Boulder.

Special Requirements

Students enter CMU as "pre-civil engineering" majors. A student may apply for admission to the University of Colorado Boulder through the Engineering Partnership Program when they have satisfied all criteria of one of the following scenarios:

Scenario 1

- Complete a college-level, two-course sequence in calculus with a grade of B– or higher
- Complete one college-level physical science course (calculus-based physics and/or college-level chemistry) with a grade of B– or higher
- Maintain a college-level cumulative GPA of 3.0 or higher

Scenario 2

- Complete the first- and second-year course sequence listed on the current Program Sheet or Degree Plan for the Engineering Partnership Program
- Maintain a college-level cumulative GPA of 3.0 or higher

Interested students can learn more about the program and admission options on the Department of Computer Science and Engineering website.

Contact Information

Department of Computer Science and Engineering
Confluence Hall
1410 North 7th Street
Grand Junction, CO, 81501
970.248.1400

Programs of Study Bachelors/Minors

- Civil Engineering, CMU/CU-Boulder Partnership Program (BSCE) (p. 256)

Civil Engineering, CMU/CU-Boulder Partnership Program (BSCE)

Degree: Bachelor of Science in Civil Engineering
Major: Civil Engineering
Program Code: 3454

This section provides links to information for the CMU-CU Boulder Civil Engineering Partnership Program. An official review of your coursework

will be performed by CU administration to ensure completion of all graduation requirements. The BSCE degree is conferred by CU Boulder.

Important information for this program:

- All Math, Science and Engineering courses completed at CMU must be completed with a grade of "C" or better to be eligible to transfer to CU Boulder.
- Minimum credits taken from CU Boulder: 45 hrs
- Minimum credits to graduate: 128 hrs

For more information on the CMU/CU Partnership Degree in Civil Engineering, visit the CMU/CU Boulder Engineering Partnership Program web page.

Classical Studies

Program Description

Classical Studies provides the opportunity to explore the civilizations of ancient Greece and Rome—the roots of Western history, literature, philosophy, and culture.

As an interdisciplinary field, Classical Studies encourages students to develop multiple intellectual skills and to think about the world around them from different perspectives. Current course offerings include Greco-Roman literature, mythology, history, archaeology, philosophy, political science, rhetoric, and of course, Latin and Greek. There is a significant amount of flexibility in the classical studies minor in terms of the courses one takes, but the study of ancient languages is the core of the program, and all minors must take one year of either Latin or Greek.

Classical studies complements other areas of study because a student can emphasize those aspects of classical civilization that relate to their primary field of study (e.g. literature, history, language, etc). In a more general sense, the skills and perspectives one acquires are well suited for those considering graduate school or any kind of post-graduate educational program such as law school or medical school. As a result of being interdisciplinary, the classical studies minor encourages students to employ a variety of methodologies in various disciplines while still developing a cohesive body of knowledge relevant to many fields and professions. The linguistic component ensures that one has a deeper understanding of language and can write, speak, and think more clearly. Furthermore, the fact that a great deal of specialized legal and medical terminology is based on Latin and Greek means that a minor in classical studies is great training for someone considering any kind of legal or medical profession. Above all, Classical Studies enriches our lives by helping us understand the source of some of our most important and relevant values, ideas, beliefs, and social structures.

Contact Information

Department of Languages, Literature and Mass Communication
Escalante Hall 237
970.248.1687

–or–

Department of Social and Behavioral Sciences
Houston Hall
970.248.1696

Programs of Study Bachelors/Minors

- Classical Studies (Minor) (p. 257)

Classical Studies (Minor)

Minor: Classical Studies
Program Code: M230

Classical studies explores the civilizations of ancient Greece and Rome and thus the roots of Western history, literature, and culture. As an interdisciplinary field, classical studies encourages students to develop multiple intellectual skills and to think about the world around them from different perspectives. Current course offerings include Greco-Roman

literature, mythology, history, archaeology, philosophy, political science, rhetoric, and of course, Latin and Greek.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(24 semester hours)

Code	Title	Semester Credit Hours
Required Courses		
Greek or Latin: [1]		6
FLGK 111 & FLGK 112	Introductory Greek I and Introductory Greek II	
FLLT 111 & FLLT 112	Introductory Latin I and Introductory Latin II	
Select two of the following: [2]		6
ENGL 222	Mythology-GTAH2	
ENGL 301	Classical Greek and Latin Literature	
HIST 430	The Ancient Mediterranean World	
Restricted Electives		**12**
POLS 452	Political Theory: Classical and Medieval	
ENGL 335	The Bible as Literature	
ENGL 370	Major Author [4]	
ENGL 386	Roots of Modern Rhetoric	
ENGL 494	Seminar in Literature [4]	
FLAV 390	Special Studies in Foreign Languages [6]	
HIST 396	Topics [4]	
HIST 435	Classical Archaeology	
HIST 440	Early and Medieval Christianity	
HNRS 396	Topics [4]	
FLGK 111 & FLGK 112	Introductory Greek I and Introductory Greek II [3]	
FLLT 111 & FLLT 112	Introductory Latin I and Introductory Latin II [3]	
ENGL 222	Mythology-GTAH2 [5]	
ENGL 301	Classical Greek and Latin Literature [5]	
HIST 430	The Ancient Mediterranean World [5]	
Total Semester Credit Hours		**24**

1 Students must take at least six hours in one language. If students complete both Greek and Latin sequences, the additional credits will apply towards Restricted Electives.

2 If all three courses are completed, the additional course will apply towards Restricted Electives.

3 Both 111 and 112 must be completed to count towards Restricted Electives. Do not double count with Greek/Latin requirement above.

4 ENGL 370, ENGL 494, HIST 396, and HNRS 396 may only count towards the Classical Studies minor if they focus on an author or topic directly related to the Greco-Roman world. Before taking one of these, students should meet with a faculty member affiliated with the classics minor in order to determine if it meets that qualification.

5 Do not double count with Required Courses above.

6 FLAV 390 is offered occasionally based on need for students who have already completed at least one year of Latin or Greek.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student’s responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar’s Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar’s Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the “Intent to Graduate” form.

If a student’s petition for graduation is denied, it will be their responsibility to consult the Registrar’s Office regarding next steps.

Commercial Driver's License Training

Overview

Program Description

CMU Tech’s Commercial Driver License (CDL) program utilizes classroom instruction and on-the-road driving time to prepare students for the Colorado Department of Motor Vehicles Commercial Driver’s License A Examination. Commercial Driver's License theory and behind-the-wheel instruction will be provided.

Important information about this program

To obtain a CDL Initial Permit Class A after completion of CDLT 100, a student must meet the following criteria:

- Hold a valid regular driver's license and be at least 18 years old before applying for a CDL permit.
- Through the Department of Motor Vehicle office, successfully pass the written test for a CDL Class A.
- Once the required exam is successfully passed, a CDL permit for the applicable fee must be purchased.

In order to complete the CDL Driver's Skills Test, a student must meet the following criteria:

- Successful obtainment of CDL Initial Permit Class A.
- Current Department of Transportation (DOT) medical card.
- Proof of current physical Colorado address documents.
- Proof of Social Security number.
- Schedule a driver's skills test with an approved driving school.
- Return to DMV with proof of successful completion of the driver's skills test completion form and purchase a CDL for the applicable fee.

Contact Information

CMU Tech
Office of Student Services, Kayenta Hall 102
2508 Blichmann Avenue
970.255.2670

Programs of Study

Certificates

- Commercial Driver's License Training (Technical Certificate) (p. 259)

Commercial Driver's License Training (Technical Certificate)

Award: Technical Certificate
Program of Study: Commercial Driver's License Training
Program Code: 1168

CMU Tech’s Commercial Driver License (CDL) program utilizes classroom instruction and on-the-road driving time to prepare students for the Colorado Department of Motor Vehicles Commercial Driver’s License A Examination. Commercial Driver's License theory and behind-the-wheel instruction will be provided.

Important information about this program:
To obtain a CDL Initial Permit Class A after completion of CDLT 100, a student must meet the following criteria:

- Hold a valid regular driver's license and be at least 18 years old before applying for a CDL permit.
- Through the Department of Motor Vehicle office, successfully pass the written test for a CDL Class A.
- Once the required exam is successfully passed, a CDL permit for the applicable fee must be purchased.

In order to complete the CDL Driver's Skills Test, a student must meet the following criteria:

- Successful obtainment of CDL Initial Permit Class A.
- Current Department of Transportation (DOT) medical card.
- Proof of current physical Colorado address documents.
- Proof of Social Security number.
- Schedule a driver's skills test with an approved driving school.
- Return to DMV with proof of successful completion of the driver's skills test completion form and purchase a CDL for the applicable fee.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Demonstrate professional behavior and communication skills to include listening, speaking, and writing specific to the truck driving industry. (Communication Fluency)
2. Demonstrate professional and ethical behavior, and work place responsibility as a heavy duty truck driver.\ (Personal and Social Responsibility)
3. Demonstrate safe work and driving habits in performance of tasks in the Transportation industry. (Specialized Knowledge, Applied Learning)
4. Demonstrate basic comprehension and analysis skills related to the field of heavy transportation to fulfill the requirements of licensed CDL holders. (Critical Thinking)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(10 Semester Hours)

Code	Title	Semester Credit Hours
CDLT 100	Commercial Driver's License Preparation	3
CDLT 101	Commercial Driver's License Training - Behind the Wheel	7
Total Semester Credit Hours		**10**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
CDLT 100	Commercial Driver's License Preparation	3
CDLT 101	Commercial Driver's License Training - Behind the Wheel	7
	Semester Credit Hours	**10**
	Total Semester Credit Hours	**10**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated

requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Communication Studies

Program Description

The Communication Studies minor offers a broad range of courses focusing on human communication behaviors and is designed to complement any major. The coursework is designed to improve oral message sending and relational communication skills. In a global survey of industries, companies and public organizations, communication skills ranked FIRST among the personal qualities of college graduates sought by employers. A communication studies minor gives graduates communication credibility and opens many doors. It also enhances interpersonal relationships — students gain valuable conflict resolution and leadership skills, learn to win arguments, discover the power of persuasion, speak out publicly, use nonverbal and visual communication more effectively, and are able to do it all in an increasingly connected, diverse global society.

Contact Information

Department of Theatre Arts
Moss Performing Arts Center 141
970.248.1242

Programs of Study Bachelors/Minors

- Communication Studies (Minor) (p. 261)

Communication Studies (Minor)

Minor: Communication Studies
Program Code: M251

In a global survey of industries, companies, and public organizations, Communication Skills ranked FIRST among the personal qualities of college graduates sought by employers. The Communication Studies minor offers a broad range of courses focusing on human communication behaviors and is designed to complement any major.

The Minor offers classes intended to give you ample opportunities to enhance your skills in presenting and persuading, logic and listening, understanding and relating, and all of it in the context of diverse real-life applications. Enhance your interpersonal relationships, gain valuable conflict resolution and leadership skills, win arguments, discover the power of persuasion, speak out publicly, use nonverbal and visual communication, and be able to do it all in an increasingly connected, diverse global society.

A Minor in Communication Studies will absolutely enhance your résumé, giving you the communication credibility to open many doors. But beyond that, the Minor in Communication Studies will make a real, positive difference in your personal and professional lives and the lives of those around you.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information,

scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(18 semester hours)

Code	Title	Semester Credit Hours
SPCH 101	Interpersonal Communication	3
SPCH 102	Speechmaking	3
SPCH 203	Persuasion	3
SPCH 308	Argumentation	3
Select two courses of the following:		6
SPCH 112	Acting III: Voice and Diction	
SPCH 303	Nonverbal Communication	
SPCH 304	Communication and Conflict	
SPCH 305	Intercultural Communication	
SPCH 306	Communication and Leadership	
SPCH 307	Professional Presentations	
Total Semester Credit Hours		**18**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student’s responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar’s Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar’s Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the “Intent to Graduate” form.

If a student’s petition for graduation is denied, it will be their responsibility to consult the Registrar’s Office regarding next steps.

Computer Information Systems

Program Description

The Computer Information Systems in Business (CISB) program at CMU offers a Bachelor of Science and a Bachelor of Applied Science in Computer Information Systems, a Bachelor of Business Administration in Business Analytics, minors in both areas, along with a certificate in Managerial Informatics.

The Bachelor of Science in computer information systems is a degree required as organizations face the challenges of technology management. The program provides graduates with business management skills and computer information systems expertise to manage computer systems in today's organizations. As businesses increasingly rely on technology to provide a competitive advantage, employees with an understanding of both business concepts and computer information systems are a necessity. Graduates of this program are employed in occupations such as systems analysts, analyst/programmers, database administrators, network administrators, web page designers, help desk specialists, and information technology managers. Graduates assist businesses with creating, obtaining, and maintaining computer information systems that house the organization's data which are used to solve problems and assist in facilitating routine business events. Computer information systems studies require students to examine computer systems from organizational, social, psychological and technical perspectives. Graduates from this program have taken a variety of courses that were developed based on national guidelines for quality degrees in information systems.

The Bachelor of Applied Science (BAS) in computer information systems combines technical skills with the business proficiency needed in today's organizations. A unique program, the BAS allows students who have already earned an Associates of Applied Science (AAS) to build upon their technical specialties with essential learning courses and junior/senior level computer information coursework. This allows AAS degree holders to gain a four-year degree in approximately four additional full-time semesters, depending upon prior coursework. Computer information systems courses include coursework in data analytics, project management, systems analysis and design, database administration, networking, productivity tools and decision support, as well as systems development and implementation, including programming and information systems theory. BAS students will be technically and academically prepared for management positions within information technology.

The Bachelor of Business Administration in business analytics provides foundational applied analytics, modern software tools for analyzing data, along with data skills that are trending in industry. The program provides graduates who are prepared to address an organization's data as a resource to be mined for information concerning the operations of a modern organization. Graduates of this program are employed as financial analysts, data analysts, health data analysts, cloud data analysts, and marketing data analysts in organizations utilizing data driven decision-making.

The computer information systems or business analytics minor allows students majoring in other areas to enhance their degrees with information systems knowledge or analytical skills used in business today. Graduates may use their expertise to help solve computer system problems for businesses or analyze data for the organization. Since many businesses rely heavily on computer systems as decision-making tools, graduates with either of these minors have a competitive advantage entering the workforce.

The Associate of Arts in business computer information systems provides students with an overview of computer information systems used in business. By earning essential learning credits, the degree positions students for completion of a four-year degree in business or another area of interest. The degree program includes the Colorado Statewide General Education Core and meets the lower-division general education requirements at most public institutions in Colorado. The associate degree with an emphasis in business computer information systems, in addition to providing students with much of their essential learning coursework, is useful in providing students with a working knowledge of computer hardware and software, common productivity tools such as presentation software, spreadsheets and database management software used in businesses. This degree provides skills that can be used in the workplace immediately.

The certificate in managerial informatics is comprised of three courses that give the certificate holder foundational knowledge about an organization's data as applied to its use in organizational decision-making.

Contact Information

Davis School of Business
Dominguez Hall 301
970.248.1778

Programs of Study
Bachelors/Minors

- Business Analytics (Minor) (p. 271)
- Computer Information Systems (BAS) (p. 263)
- Computer Information Systems (BS) (p. 266)
- Computer Information Systems (Minor) (p. 272)

Associates

- Business Computer Information Systems, Liberal Arts (AA) (p. 269)

Certificates

- Decision Support Systems (Professional Certificate) (p. 273)

Computer Information Systems (BAS)

Degree: Bachelor of Applied Science
Major: Computer Information Systems
Program Code: 3167

The Bachelor of Applied Science in Computer Information Systems combines the technical skills and business proficiency necessary for success in today's business world. A unique program, the BAS allows students who have already earned an associate of applied science degree to build upon their technical specialties with Essential Learning courses and junior and senior level computer information systems courses. This allows associate degree holders to gain a 4-year degree in approximately four additional full-time semesters, depending upon prior coursework.

Computer Information Systems courses to be taken include coursework in project management, systems analysis and design, database administration, networking, electronic commerce, productivity tools,

decision support, systems development and implementation including programming and information systems theory. BAS students will be technically and academically prepared for leadership positions within the information technology functional areas in their chosen industries.

Prospective students not holding an associate of applied science degree can begin their college career at CMU in a chosen field of study with a 2-year degree and then progress to a 4-year degree using the BAS. This degree will provide students upward mobility in their area of employment as they move into supervision/management positions.

Important information for this program:

- To be admitted to the BAS degree, an applicant must possess an AAS degree from an accredited school in computer information systems, computer programming, electronic engineering technology, information technology, network technology, telecommunications, or related area such as computer aided design or graphics design. Any exceptions to this must be approved in advance by the department BAS advisor and the academic department head. All students must meet with the BAS advisor to plan and schedule all classes.
- Requests for more than 6 hours of internship must be approved by the advisor.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Apply business knowledge and skills in appropriate business contexts. (Specialized Knowledge/Applied Learning)
2. Analyze business issues critically utilizing quantitative research methodologies. (Quantitative Fluency)
3. Analyze business issues critically utilizing qualitative research methodologies. (Critical Thinking)
4. Utilize relevant and critically evaluated information in the process of communicating clearly, appropriately, and accurately to the audience in writing. (Communication Fluency, Information Literacy, Specialized Knowledge/Applied Learning)
5. Utilize relevant and critically evaluated information in the process of communicating clearly, appropriately, and accurately to the audience orally. (Communication Fluency, Information Literacy, Specialized Knowledge/Applied Learning)
6. Differentiate various functions of teams within organizations. (Specialized Knowledge/Applied Learning)
7. Demonstrate behaviors consistent with effective teamwork. (Specialized Knowledge/Applied Learning)
8. Analyze an issue within an ethical framework. (Personal and Social Responsibility)
9. Recommend a solution based on an ethical framework. (Critical Thinking)
10. Engage in a local, regional, national, and/or international activity that positively impacts society. (Personal and Social Responsibility)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU Bachelor of Applied Science (BAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Completion of an appropriate Associate of Applied Science (AAS) degree from an accredited institution is required for the BAS; exceptions must be approved by the BAS advisor and department head.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 33 upper-division credits.
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements. The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 113	College Algebra-GTMA1 (or higher) [2]	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

[1] Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

[2] This is a 4 credit course. 3 credits apply to the Essential Learning requirements and 1 credit applies to general elective credit.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Program Specific Degree Requirements

(75-76 semester hours, must earn a grade of “C” or better in each course

Code	Title	Semester Credit Hours
Required Courses		
CISB 205	Advanced Business Software	3
Select one of the following courses:		3-4
CISB 206	Introduction to Business Application Programming	
CSCI 111	CS1: Foundations of Computer Science	
Other Object-Oriented Programming Course approved by advisor		
CISB 210	Fundamentals of Information Systems	3
CISB 241	Introduction to Business Analysis	3
or STAT 241	Introduction to Business Analysis	
CISB 309	Enterprise Systems	3
CISB 315	Information Systems Infrastructure	3
CISB 331	Advanced Business Programming	3
CISB 410	Project Management	3
CISB 442	Systems Analysis and Design	3
CISB 451	Database Administration	3
CISB 470	Management of Information Systems	3
CISB 471	Advanced Information Systems	3
CISB 341	Quantitative Decision Making	3
Core Courses		
36 Semester Hours taken as part of a state approved Associate of Applied Science degree		36
Total Semester Credit Hours		**75-76**

General Electives

(7-8 semester hours)

Code	Title	Semester Credit Hours
MATH 113	College Algebra-GTMA1	1
Select additional electives [1]		6-7
Total Semester Credit Hours		**7-8**

[1] All college level courses appearing on final transcript, not listed above to bring total semester hours to 120. 7-8 semester hours, 6 semester hours must be upper division.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student’s responsibility to understand and fulfill the requirements for her/his intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar’s Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audits on a regular basis and should discuss questions or concerns with their advisors or academic department heads. Discrepancies in requirements should be reported to the Registrar’s Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Computer Information Systems (BS)

Degree: Bachelor of Science
Major: Computer Information Systems
Program Code: 3165

The Bachelor of Science in Computer Information Systems is a degree required today as organizations face the challenges of technology management. This program provides graduates with business management skills and computer information expertise to manage computer systems in today's organizations. Graduates of this program are employed in occupations such as systems analysts, analyst/programmers, database administrators, network administrators, web page designers, help desk specialists, and IT Managers.

Graduates assist businesses with creating, obtaining, and maintaining computer information systems that solve problems and assist in facilitating routine business events. As businesses increasingly rely on technology to provide a competitive advantage, employees with an understanding of both business concepts and computer systems are necessary. Computer information systems studies require students to examine computer systems from organizational, social, psychological, and technical perspectives. Graduates from this program will have taken a variety of courses that were developed based on national guidelines for quality degrees in information systems.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Apply business knowledge and skills in appropriate business contexts. (Specialized Knowledge/Applied Learning)
2. Analyze business issues critically utilizing quantitative research methodologies. (Quantitative Fluency)
3. Analyze business issues critically utilizing qualitative research methodologies. (Critical Thinking)
4. Utilize relevant and critically evaluated information in the process of communicating clearly, appropriately, and accurately to the audience in writing. (Communication Fluency, Information Literacy, Specialized Knowledge/Applied Learning)
5. Utilize relevant and critically evaluated information in the process of communicating clearly, appropriately, and accurately to the audience orally. (Communication Fluency, Information Literacy, Specialized Knowledge/Applied Learning)
6. Differentiate various functions of teams within organizations. (Specialized Knowledge/Applied Learning)
7. Demonstrate behaviors consistent with effective teamwork. (Specialized Knowledge/Applied Learning)
8. Analyze an issue within an ethical framework. (Personal and Social Responsibility)
9. Recommend a solution based on an ethical framework. (Critical Thinking)
10. Engage in a local, regional, national, and/or international activity that positively impacts society. (Personal and Social Responsibility)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with

your advisor or academic department to determine which catalog year and program requirements you should follow.

- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 113	College Algebra-GTMA1 [2]	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [3]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

[1] Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

[2] This is a 4 credit course. 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.

[3] 7 semester hours, one course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(12 semester hours)

Code	Title	Semester Credit Hours
ACCT 201	Principles of Financial Accounting	3
CISB 205	Advanced Business Software	3
Select one of the following courses:		3-4
CISB 206	Introduction to Business Application Programming	
CSCI 111	CS1: Foundations of Computer Science	
Other Object-Oriented Programming Course approved by advisor		
CISB 210	Fundamentals of Information Systems	3
Total Semester Credit Hours		**12-13**

Program Specific Degree Requirements

(54 semester hours, must earn a grade of “C” or better in each course)

Code	Title	Semester Credit Hours
Core Courses		
Computer Information Systems Core		
Select one of the following courses:		3
CISB 101	Business Information Technology	
CISB 305	Solving Problems Using Spreadsheets	
CISB 306	Solving Problems Using Databases	
CISB 309	Enterprise Systems	3
CISB 315	Information Systems Infrastructure	3
CISB 331	Advanced Business Programming	3
CISB 410	Project Management	3
CISB 442	Systems Analysis and Design	3
CISB 451	Database Administration	3
CISB 470	Management of Information Systems	3
CISB 471	Advanced Information Systems	3
Business Support Classes		
ACCT 202	Principles of Managerial Accounting	3
BUGB 351	Business Law I	3
ECON 201	Principles of Macroeconomics-GTSS1	3
ECON 202	Principles of Microeconomics-GTSS1	3
FINA 301	Managerial Finance	3
MANG 201	Principles of Management	3
MARK 231	Principles of Marketing	3
Quantitative Analysis Courses		
CISB 241	Introduction to Business Analysis	3
or STAT 241	Introduction to Business Analysis	
CISB 341	Quantitative Decision Making	3
Total Semester Credit Hours		**54**

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours. 16-17 semester hours, 4-7 hours of upper division may be needed. It is highly recommended that at least 3 hours must be individualized studies such as Directed Readings or Independent Study. Recommended: TECI 260, CISB 460, CISB 305, or CISB 306.

Code	Title	Semester Credit Hours
MATH 113	College Algebra-GTMA1	1
General Elective Courses		15-16
Total Semester Credit Hours		**16-17**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
Select one of the following:		3
CISB 101	Business Information Technology	
CISB 305	Solving Problems Using Spreadsheets	
CISB 306	Solving Problems Using Databases	
ENGL 111	English Composition I-GTCO1	3
MATH 113	College Algebra-GTMA1	4
Essential Learning - History		3
Essential Learning - Humanities		3
	Semester Credit Hours	**16**
Spring Semester		
CISB 205	Advanced Business Software	3
ENGL 112	English Composition II-GTCO2	3
CISB 210	Fundamentals of Information Systems	3
Essential Learning - Fine Arts		3
Essential Learning - Social and Behavioral Science		3
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
ACCT 201	Principles of Financial Accounting	3
CISB 206 or CSCI 111	Introduction to Business Application Programming or CS1: Foundations of Computer Science	3
CISB 309	Enterprise Systems	3
ECON 201	Principles of Macroeconomics-GTSS1	3
MANG 201	Principles of Management	3
	Semester Credit Hours	**15**
Spring Semester		
ACCT 202	Principles of Managerial Accounting	3
CISB 315	Information Systems Infrastructure	3
ECON 202	Principles of Microeconomics-GTSS1	3
MARK 231	Principles of Marketing	3
CISB 241 or STAT 241	Introduction to Business Analysis or Introduction to Business Analysis	3
	Semester Credit Hours	**15**
Third Year		
Fall Semester		
CISB 410	Project Management	3
CISB 341	Quantitative Decision Making	3
CISB 331	Advanced Business Programming	3
Essential Learning - Social and Behavioral Science		3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
	Semester Credit Hours	**16**
Spring Semester		
CISB 470	Management of Information Systems	3
CISB 442	Systems Analysis and Design	3
Essential Learning - Natural Science with Lab		4
KINE 100	Health and Wellness	1
KINA Activity		1
General Elective		3
	Semester Credit Hours	**15**
Fourth Year		
Fall Semester		
CISB 451	Database Administration	3
BUGB 351	Business Law I	3
FINA 301	Managerial Finance	3
Essential Learning - Natural Science		3
General Elective		3
	Semester Credit Hours	**15**
Spring Semester		
CISB 471	Advanced Information Systems	3
General Electives		10
	Semester Credit Hours	**13**
	Total Semester Credit Hours	**120**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Business Computer Information Systems, Liberal Arts (AA)

Degree: Associate of Arts
Major: Liberal Arts
Emphasis: Business Computer Information Systems
Program Code: 2145

The Associate of Arts (AA) degree is designed for students who intend to continue their education and obtain a baccalaureate degree. The AA is the appropriate choice for students who will take upper division coursework in the arts, humanities, or social and behavioral sciences. The degree program includes the Colorado Statewide Essential Learning Core and meets the lower-division Essential Learning requirements at most public institutions in Colorado.

The CIS AA degree, in addition to providing students with Essential Learning coursework is useful in giving students a working knowledge of computer hardware and software. Common productivity tools such as presentation software, spreadsheets and database management software used in businesses are presented. This skill set will give students an edge in future classes pursued. If a student graduates with the associate's degree, the CIS AA provides skills that can be used in the workplace immediately.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. 1. Locate, gather and organize information on an assigned computer information topic. (Specialized Knowledge)
2. 2. Recognize mathematical concepts and methods in relation to computer information systems issues. (Quantitative Fluency)
3. 3. Communicate clearly and appropriately basic computer information systems information. (Communication Fluency)
4. 4. Describe beginning computer information systems concepts in appropriate business contexts. (Critical Thinking)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU or CMU Tech Associate of Arts (AA) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours total.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade of "C" or higher must be earned in all Essential Learning courses in order to be accepted for transfer under the Colorado Core Transfer Consortium General Education curriculum or gtPathways, Colorado's guaranteed transfer program.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 15 semester credit hours for an AA degree. A maximum of 6 of the 15 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 113	College Algebra-GTMA1 [2]	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3

Social and Behavioral Sciences	
Select one Social and Behavioral Sciences course	3
Select one Social and Behavioral Sciences course	3
Fine Arts	
Select one Fine Arts course	3
Natural Sciences [3]	
Select one Natural Sciences course	3
Select one Natural Sciences course with a lab	4
Total Semester Credit Hours	**31**

[1] Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.
[2] 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.
[3] 7 semester hours, one course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Total Semester Credit Hours		**2**

Program Specific Degree Requirements

(21 semester hours, must maintain a 2.00 cumulative GPA or higher in all CMU coursework in this area.)

Code	Title	Semester Credit Hours
Required Courses		
ACCT 201	Principles of Financial Accounting	3
BUGB 211	Business Communications	3
CISB 205	Advanced Business Software	3
CISB 101	Business Information Technology	3
CISB 210	Fundamentals of Information Systems	3
TECI 132	Introduction to IT Hardware and System Software	3
Select one of the following courses:		3
CISB 206	Introduction to Business Application Programming	
CSCI 111	CS1: Foundations of Computer Science [1]	
Object Oriented Programming Course approved by CIS advisor		
Total Semester Credit Hours		**21**

[1] Course requires additional pre-requisites beyond those required for the degree.

General Electives

(6 semester hours)

Code	Title	Semester Credit Hours
MATH 113	College Algebra-GTMA1	1
Select additional electives		5
Total Semester Credit Hours		**6**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
CISB 101	Business Information Technology	3
MATH 113	College Algebra-GTMA1	4
Essential Learning - Social and Behavioral Sciences		3
KINE 100	Health and Wellness	1
Wellness Requirement - Activities Course		1
	Semester Credit Hours	**15**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
CISB 205	Advanced Business Software	3
Essential Learning - History		3
Essential Learning - Natural Science without lab		3
Essential Learning - Humanities		3
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
ACCT 201	Principles of Financial Accounting	3
BUGB 211	Business Communications	3
Select one of the following courses:		3
CISB 206	Introduction to Business Application Programming	
CSCI 111	CS1: Foundations of Computer Science	
Object Oriented Programming Course approved by CIS advisor		
Essential Learning - Fine Arts		3
General Elective		3
	Semester Credit Hours	**15**
Spring Semester		
CISB 210	Fundamentals of Information Systems	3
Essential Learning - Natural Science with lab		4
Essential Learning - Social and Behavioral Sciences		3
General Elective		2
TECI 132	Introduction to IT Hardware and System Software	3
	Semester Credit Hours	**15**
	Total Semester Credit Hours	**60**

Students that intend to continue with Colorado Mesa University should take ESSL 290 and ESSL 200 during the final semester of their Associate of Arts work.

Advising and Graduation Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It

is ultimately the student's responsibility to understand and fulfill the requirements for her/his intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Business Analytics (Minor)

Minor: Business Analytics
Program Code: M146

The minor in Business Analytics is designed to prepare students for managerial level decision making based on the use of information and computer technology. Today's world presents a wealth of data. Using data effectively requires insight and talent with a variety of tools. The Business Analytics minor is intended for students who are interested in expanding their knowledge and skills in the use of data and related technologies. A Business Analytics minor coupled with any major can increase the employment opportunities available in a wide variety of areas.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(21 semester hours)

Code	Title	Semester Credit Hours
Required Courses		
CISB 205	Advanced Business Software	3
CISB 241	Introduction to Business Analysis [1]	3
CISB 305	Solving Problems Using Spreadsheets	3
CISB 306	Solving Problems Using Databases	3
CISB 341	Quantitative Decision Making	3
Select two of the following:		6
CISB 342	Data Mining and Visualization	
CISB 343	Big Data Analytics	
ECON 415	Econometrics	
Total Semester Credit Hours		**21**

[1] Course requires additional course prerequisites beyond those required for the minor.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested

course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the "Intent to Graduate" form.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Computer Information Systems (Minor)

Minor: Computer Information Systems
Program Code: M751

The CIS Minor allows students majoring in other subjects to enhance their degree with information systems knowledge. Graduates may use their expertise to help solve computer system problems for businesses. Since many businesses rely heavily on computer systems as decision-making tools, graduates with this minor will have a competitive advantage over those without it when applying for positions in many organizations. This minor may also give students an advantage when attempting to advance within an organization.

Additionally, many employees in numerous organizations find themselves daily using computer hardware and software as productivity tools within their positions. The CIS minor assists students in learning skills and background information that they will need in all occupations.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(21 semester hours)

Code	Title	Semester Credit Hours
Required Courses		
CISB 205	Advanced Business Software	3
CISB 210	Fundamentals of Information Systems	3
CISB 309	Enterprise Systems	3
CISB 315	Information Systems Infrastructure	3
CISB 410	Project Management	3
CISB 470	Management of Information Systems	3
Select one of the following:		3
CISB 305	Solving Problems Using Spreadsheets	
CISB 306	Solving Problems Using Databases	
CISB 442	Systems Analysis and Design [1]	
Total Semester Credit Hours		**21**

[1] Course requires additional prerequisites beyond those related to this minor.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their

advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the "Intent to Graduate" form.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Decision Support Systems (Professional Certificate)

Award: Professional Certificate
Program of Study: Decision Support Systems
Program Code: 1170

The Certificate in Decision Support Systems is designed to expose students and business managers to the knowledge and skills needed to use computer software to solve business problems, particularly to support decision making. The certificate will provide students with an overview of information they would encounter if they went on to the BS in Computer Information Systems, which more fully prepares students to work in or manage the information systems functions of organizations.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU Professional Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Primarily 300-400 level courses.
- At least fifty percent of the credit hours must be taken at CMU.
- 2.00 cumulative GPA or higher in all CMU coursework.
- A grade lower than "C" in the program of study will not be counted toward meeting the certificate's requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(9 semester hours)

Code	Title	Semester Credit Hours
Required Courses		
CISB 205	Advanced Business Software	3
CISB 305	Solving Problems Using Spreadsheets	3
CISB 306	Solving Problems Using Databases	3
Total Semester Credit Hours		**9**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
CISB 205	Advanced Business Software	3
	Semester Credit Hours	**3**
Spring Semester		
CISB 306	Solving Problems Using Databases	3
	Semester Credit Hours	**3**
Second Year		
Fall Semester		
CISB 305	Solving Problems Using Spreadsheets	3
	Semester Credit Hours	**3**
	Total Semester Credit Hours	**9**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Computer Science

Program Description

Computer science is the study of algorithms and the issues involved in implementing them. The **Bachelor of Science degree in Computer Science** includes core courses in algorithms, data structures, logic, programming languages, software design and advanced mathematics. Electives in web page design, artificial intelligence, robotics, computer graphics, video game design, databases, security, multimedia and networks are also possible. The program and course offerings are constantly evolving to keep up with the latest changes in the computer science field. The small class sizes at Colorado Mesa University allow for close interaction between faculty and students, with independent research projects and internships available.

A wide variety of professional and academic opportunities exist for graduates in the computer science field, including software engineering, software testing, computational finance, game design, computer graphics, robotics, artificial intelligence, internet systems and technology, security, hardware development, animation, medicine, biotechnology, business management and consulting and modeling, as well as master's and doctoral studies in computing-related fields. Graduates have continued on to advanced degrees in top tier schools and are employed at IBM, Microsoft, Northrup-Grumann, Lockheed-Martin and many other technical companies.

The **Associate of Science degree in Computer Science** with an emphasis in computer science includes courses in web page design, various programming languages, data structures and computer architecture. While the associate's degree prepares students to complete a Bachelor of Science degree in Computer Science (which is strongly recommended), employment opportunities are open to the successful graduate, including positions such as web developers, computer operators and technical support specialists.

A **Minor in Computer Science** is an excellent enhancement to degrees in the many fields which make extensive use of computer software, such as engineering, physics and mathematics, but also for non-science fields such as graphic arts, education or sociology. The degree prepares students to understand computer science foundations in software development and in hardware, as well as common application software development such as database software, graphical user interfaces and video game design.

The **Professional Certificate in Web Application Development** is designed for those who wish to develop in this popular field, and who may be either active professionals or new students to the field. The degree will prepare students in popular web programming languages such as JavaScript, as well as preparing the student to work with popular database programs necessary for most web applications today.

Contact Information

Department of Computer Science and Engineering
Confluence Hall
1410 North 7th Street
Grand Junction, CO, 81501
970.248.1400

Programs of Study

Associates

- Computer Science, Liberal Arts (AS) (p. 277)

Bachelors/Minors

- Computer Science (BS) (p. 275)
- Computer Science (Minor) (p. 280)

Certificates

- Data Science (Professional Certificate) (p. 281)
- Web Application Development (Professional Certificate) (p. 282)

Computer Science (BS)

Degree: Bachelor of Science
Major: Computer Science
Program Code: 3420

Computer science studies algorithms and the issues involved in implementing them. The program includes core courses in algorithms, data structures, logic, programming languages, software design, and advanced mathematics. Electives in web page design, artificial intelligence, robotics, computer graphics, video game design, databases, security, multimedia, and networks are also possible. The program and course offerings are constantly evolving to keep up with the latest changes in the Computer Science field. The small class sizes allow for close interaction between faculty and students, with independent research projects and internships available.

A wide variety of exciting professional and academic opportunities exist for graduates of computer science including software engineering, software testing, computational finance, game design, computer graphics, robotics, artificial intelligence, internet systems and technology, security, hardware development, animation, medicine, biotechnology, business management and consulting, modeling, as well as masters and doctoral studies in computing-related fields. Our graduates have continued to advanced degrees in top-tier schools and are employed at Amazon, IBM, Microsoft, Northrup Grumann, Lockheed-Martin, and many other technology companies.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource or the CMU Computer Science website.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Analyze a complex computing problem and apply principles of computing and other relevant disciplines to identify solutions. (Critical Thinking, Applied Learning, Quantitative Fluency)
2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline. (Specialized Knowledge, Quantitative Fluency)
3. Evaluate and apply relevant information to communicate effectively in a variety of professional contexts. (Information Literacy, Communication Fluency)
4. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles. (Personal and Social Responsibility)
5. Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline. (Specialized Knowledge)
6. Apply computer science theory and software development fundamentals to produce computing-based solutions. (Specialized Knowledge)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1,2]		
MATH 151	Calculus I-GTMA1	3
or MATH 135	Engineering Calculus I	
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [3]		
Select one Natural Sciences course with a lab		4
Select one Natural Sciences course		3
Total Semester Credit Hours		**31**

1. Must receive a grade of "C" or better. Must be completed by the time the student has 60 semester hours.
2. MATH 151 is 5 credit hours, and MATH 135 is 4 credit hours. Depending on the course selected, 3 credits will apply to the Essential Learning requirements and 1 or 2 credits will apply to Foundation Courses.
3. One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

1. Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(23-25 semester hours)

Code	Title	Semester Credit Hours
CSCI 110 & 110L	Beginning Programming and Beginning Programming Laboratory	4
CSCI 111	CS1: Foundations of Computer Science	4
CSCI 112	CS2: Data Structures	4
MATH 151	Calculus I-GTMA1 [1]	1-2
or MATH 135	Engineering Calculus I	
MATH 152	Calculus II	4-5
or MATH 136	Engineering Calculus II	
STAT 200	Probability and Statistics-GTMA1	3
CSCI 260	Introduction to Database	3
Total Semester Credit Hours		**23-25**

1. MATH 151 is 5 credit hours, and MATH 135 is 4 credit hours. Depending on the course selected, 3 credits will apply to the Essential Learning requirements and 1 or 2 credits will apply to Foundation Courses.

Program Specific Degree Requirements

40 semester hours, 2.5 GPA is required in major courses, no more than one "D" may be used in completing major requirements.

Code	Title	Semester Credit Hours
Core Courses		
CSCI 241	Computer Architecture and Assembly Language	4
CSCI 250	CS3: Introduction to Algorithms	3
CSCI 330	Programming Languages	3
MATH 369	Discrete Structures I	3
CSCI 375	Object Oriented Programming and Design Patterns	3
CSCI 470	Operating Systems Design	3
CSCI 480	Algorithms: Design and Analysis	3
CSCI 484	Computer Networks	3
CSCI 490	Software Engineering	3
Restricted Electives		
Complete 12 semester hours of CSCI 300-level or 400-level courses. MATH 361 will also count as a restricted elective.		12
Total Semester Credit Hours		**40**

General Electives

All college-level courses appearing on your final transcript, not listed above, will bring your total semester hours to 120 hours, including 40 upper-division hours. 20 semester hours, including 7 upper-division hours, may be needed.

Code	Title	Semester Credit Hours
General electives		20
Total Semester Credit Hours		**20**

Suggested Course Plan

While the sequencing below culminates in a total of 120-122 semester credit hours, students must complete a minimum of 120 semester credit hours as required for completion of this degree, including satisfactory completion of all required courses. Plan to complete requirements with varying hour options accordingly.

First Year		
Fall Semester		**Semester Credit Hours**
CSCI 110 & 110L	Beginning Programming and Beginning Programming Laboratory	4
MATH 151 or MATH 135	Calculus I-GTMA1 or Engineering Calculus I	4-5
ENGL 111	English Composition I-GTCO1	3
KINE 100	Health and Wellness	1
Essential Learning - Social and Behavioral Science		3
	Semester Credit Hours	**15-16**
Spring Semester		
CSCI 111	CS1: Foundations of Computer Science	4
MATH 152 or MATH 136	Calculus II or Engineering Calculus II	4-5
ENGL 112	English Composition II-GTCO2	3
KINA Activity		1
Essential Learning - Social and Behavioral Science		3
	Semester Credit Hours	**15-16**
Second Year		
Fall Semester		
CSCI 112	CS2: Data Structures	4
CSCI 260	Introduction to Database	3
Essential Learning - History		3
Essential Learning - Natural Science with Lab		4
	Semester Credit Hours	**14**
Spring Semester		
CSCI 241	Computer Architecture and Assembly Language	4
CSCI 250	CS3: Introduction to Algorithms	3
STAT 200	Probability and Statistics-GTMA1	3
ESSL 200	Essential Speech	1
ESSL 290	Maverick Milestone	3
Essential Learning - Natural Science		3
	Semester Credit Hours	**17**
Third Year		
Fall Semester		
CSCI 330	Programming Languages	3
MATH 369	Discrete Structures I	3
Essential Learning - Fine Arts		3
Essential Learning - Humanities		3
Electives		3
	Semester Credit Hours	**15**
Spring Semester		
CSCI 375	Object Oriented Programming and Design Patterns	3
Restricted Elective		3
Restricted Elective		3
Electives		6
	Semester Credit Hours	**15**
Fourth Year		
Fall Semester		
CSCI 480	Algorithms: Design and Analysis	3
CSCI 484	Computer Networks	3
Restricted Elective		3
Electives		6
	Semester Credit Hours	**15**
Spring Semester		
CSCI 470	Operating Systems Design	3
CSCI 490	Software Engineering	3
Restricted Electives		3
Electives		5
	Semester Credit Hours	**14**
	Total Semester Credit Hours	**120-122**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Computer Science, Liberal Arts (AS)

Degree: Associate of Science

Major: Liberal Arts
Emphasis: Computer Science
Program Code: 2421

Computer Science is the study of computers and computational systems. It is a broad field which includes everything from the programming languages that make up software to how software interacts with hardware to how well software is developed and designed. The Computer Science Associates Degree includes courses in web page design, various programming languages, data structures and computer architecture.
While the degree prepares students to complete a BS in Computer Science (which is strongly recommended), employment opportunities are open to the successful graduate, including positions such as web development, computer operators, and/or technical support positions.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource or the CMU Computer Science website.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline. (Specialized Knowledge, Quantitative Fluency)
2. Evaluate and apply relevant information to communicate effectively in a variety of professional contexts. (Information Literacy, Communication Fluency)
3. Apply computer science theory and software development fundamentals to produce computing-based solutions. (Specialized Knowledge)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU or CMU Tech Associate of Science (AS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours total.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade of "C" or higher must be earned in all Essential Learning courses in order to be accepted for transfer under the Colorado Core Transfer Consortium General Education curriculum or gtPathways, Colorado's guaranteed transfer program.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 15 semester credit hours for an associate of science degree. A maximum of 6 of the 15 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this program:

- 2.50 cumulative GPA or higher in all CMU coursework and in coursework toward major content area.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 119	Precalculus Mathematics-GTMA1 [2,3]	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [4]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

[1] Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.
[2] MATH 119 is a 5 semester credit hour course. 3 credits apply to the Essential Learning requirements and 2 credits apply to elective credit.
[3] May also satisfy this requirement by completing both MATH 119A: Algebra for Calculus (4 credits) and MATH 119B: Trigonometry for Calculus (3 credits). MATH 151 (or MATH 135) and MATH 152 (or MATH 136) strongly recommended for those who plan to go on to a BS Computer Science degree.
[4] 7 semester hours, one course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Total Semester Credit Hours		**2**

Program Specific Degree Requirements

(22 semester hours)

Required for this degree:

- 2.50 cumulative GPA or higher in all CMU coursework and in coursework toward major content area.

Code	Title	Semester Credit Hours
Core Classes		
CSCI 110 & 110L	Beginning Programming and Beginning Programming Laboratory	4
CSCI 111	CS1: Foundations of Computer Science	4
CSCI 112	CS2: Data Structures	4
CSCI 206	Progressive Web App Development	3
CSCI 241	Computer Architecture and Assembly Language	4
CSCI 260	Introduction to Database	3
Total Semester Credit Hours		**22**

General Electives

(5 Semester Hours)

Recommended: 200-level or higher classes with a CSCI prefix or any of the following MATH courses: MATH 151, MATH 135, MATH 152, or MATH 136.

Code	Title	Semester Credit Hours
MATH 119	Precalculus Mathematics-GTMA1 [1]	2
Select electives		3

[1] MATH 151 (or MATH 135) and MATH 152 (or MATH 136) are strongly recommended for those who plan to go on to a BS Computer Science degree.

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
CSCI 110 & 110L	Beginning Programming and Beginning Programming Laboratory	4
ENGL 111	English Composition I-GTCO1	3
MATH 119	Precalculus Mathematics-GTMA1	5
Essential Learning - Social and Behavioral Sciences		3
	Semester Credit Hours	**15**
Spring Semester		
CSCI 111	CS1: Foundations of Computer Science	4
ENGL 112	English Composition II-GTCO2	3
KINE 100	Health and Wellness	1
Essential Learning - Fine Arts		3
Essential Learning - Social and Behavioral Sciences		3
	Semester Credit Hours	**14**
Second Year		
Fall Semester		
CSCI 112	CS2: Data Structures	4
CSCI 260	Introduction to Database	3
Essential Learning - History		3
Essential Learning - Natural Science with lab		4
Wellness Requirement - Activities Course		1
	Semester Credit Hours	**15**
Spring Semester		
CSCI 206	Progressive Web App Development	3
CSCI 241	Computer Architecture and Assembly Language	4
Essential Learning - Natural Science without lab		3
Essential Learning - Humanities		3
General Elective		3
	Semester Credit Hours	**16**
	Total Semester Credit Hours	**60**

Students that intend to continue with Colorado Mesa University should take ESSL 290 and ESSL 200 during the final semester of their Associate of Science work.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and

should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Computer Science (Minor)

Minor: Computer Science
Program Code: M450

Computer science is the study of algorithms and the issues involved in implementing them. A Minor in Computer Science is an excellent enhancement to degrees in the many fields which make extensive use of computer software, such as engineering, physics, and mathematics, but also for non-science fields such as graphic arts, education, or sociology. The degree prepares students to understand computer science foundations in software development and in hardware, as well as common application software development such as database software, graphical user interfaces, or in video game design.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(23-24 semester hours)

Code	Title	Semester Credit Hours
Required Courses		
CSCI 111	CS1: Foundations of Computer Science	4
or CSCI 130	Introduction to Engineering Computer Science	
CSCI 112	CS2: Data Structures	4
CSCI 250	CS3: Introduction to Algorithms	3
Select one of the following:		3-4
CSCI 241	Computer Architecture and Assembly Language	
CSCI 206	Progressive Web App Development	
CSCI 260	Introduction to Database	
Select three of the following:		9
CSCI 306	Web Page Design III	
CSCI 310	Advanced Programming [1]	
CSCI 322	Embedded Systems	
CSCI 333	Unix Operating Systems	
CSCI 337	User Interface Design	
CSCI 375	Object Oriented Programming and Design Patterns	
CSCI 460	Database Design	
Total Semester Credit Hours		**23-24**

[1] CSCI 310 is offered for different languages for 1-3 credit hours. A student may meet the required in any combination number of languages/courses/hours, to reach a total minimum of 3 hours taken. No language may be counted for credit more than once.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the "Intent to Graduate" form.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Data Science (Professional Certificate)

Overview

Award: Professional Certificate
Program of Study: Data Science
Program Code: 1703

Data science is an interdisciplinary process that uses scientific methods, algorithms, and automated systems to transform data into information to gain knowledge from noisy structured and unstructured data. Data science also expands knowledge of statistical data analysis techniques utilized in business decision-making. This certificate program explores concepts and techniques of knowledge extraction/discovery to derive actionable insights from data. This program prepares students to apply quantitative modeling and data analysis techniques to solve real-world business problems, communicate findings, and effectively present results using data visualization techniques.

All CMU certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, critical thinking, and personal and social responsibility. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Make and defend assertions about a specialized topic in an extended well-organized document and an oral presentation that is appropriate to the discipline. (Specialized Knowledge, Communication Fluency)
2. Analyze data critically, reason logically, and apply quantitative analysis methods correctly to develop appropriate conclusions. (Critical Thinking, Quantitative Fluency)
3. Reflect on and respond to ethical, social, civic, and/or environmental challenges at local, national, and/or global levels. (Personal and Social Responsibility)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional requirements apply to all CMU Professional Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Primarily 300-400 level courses.
- At least fifty percent of the credit hours must be taken at CMU.
- 2.00 cumulative GPA or higher in all CMU coursework.
- A grade lower than "C" in the program of study will not be counted toward meeting the certificate's requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this degree:

- 21 credit hours are required for the Professional Certificate in Data Science.
- Program admission requirements include:
  - MATH 131 or MATH 135 or MATH 151
  - STAT 200 or STAT 215 or STAT 241 or CISB 241
  - CSCI 112

Program Specific Requirements

(21 Semester Hours)

Code	Title	Semester Credit Hours
CSCI 110	Beginning Programming	3
CSCI 365	Data Mining	3
CSCI 425	Python Machine Learning	3
MATH 225	Computational Linear Algebra	3

STAT 301	Computational Statistics	3
STAT 312	Correlation and Regression	3
Select three hours from the following:		3
CISB 342	Data Mining and Visualization [1]	
MATH 361	Numerical Analysis [2]	
MATH 362	Fourier Analysis [2]	
Total Semester Credit Hours		**21**

[1] Since CISB 241/STAT 241 are equivalent courses, either may be used to satisfy the prerequisite.
[2] This course requires a prerequisite.

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
CSCI 110	Beginning Programming	3
MATH 225	Computational Linear Algebra	3
STAT 301	Computational Statistics	3
	Semester Credit Hours	**9**
Spring Semester		
STAT 312	Correlation and Regression	3
CSCI 365	Data Mining	3
Complete one of the following:		3
CISB 342	Data Mining and Visualization	
MATH 361	Numerical Analysis	
MATH 362	Fourier Analysis	
	Semester Credit Hours	**9**
Second Year		
Spring Semester		
CSCI 425	Python Machine Learning	3
	Semester Credit Hours	**3**
	Total Semester Credit Hours	**21**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Web Application Development (Professional Certificate)

Award: Professional Certificate
Program of Study: Web Application Development
Program Code: 1540

The certificate in Web Application Development is designed to provide students with the knowledge and skills needed to build modern web applications. The program's goal is to provide a hands-on degree in web application development to meet the growing needs and demands from various industries.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource or the CMU Computer Science website.

All CMU certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, critical thinking, and personal and social responsibility. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Identify strengths and weaknesses of competing web application tools, languages, frameworks and defend a choice for a given situation. (Critical Thinking)
2. Write back-end server-side code for web applications using SQL and NoSQL and configure web and database servers. (Applied Learning)
3. Design and develop secure and modern web applications. (Applied Learning)
4. Demonstrate clear and effective communication on the design of web applications. (Communication Fluency)
5. Demonstrate independent learning and use of new technologies in web application design. (Specialized Knowledge)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU Professional Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Primarily 300-400 level courses.
- At least fifty percent of the credit hours must be taken at CMU.
- 2.00 cumulative GPA or higher in all CMU coursework.
- A grade lower than "C" in the program of study will not be counted toward meeting the certificate's requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(16 semester hours)

Code	Title	Semester Credit Hours
CSCI 206	Progressive Web App Development [1]	3
CSCI 260	Introduction to Database	3
CSCI 306	Web Page Design III	3
CSCI 310	Advanced Programming (Python) [2]	2
CSCI 310	Advanced Programming (Data Sciences with Python)	2
CSCI 337	User Interface Design	3
Total Semester Credit Hours		**16**

[1] It is assumed that students are familiar with basic HTML and CSS; otherwise the students will need to take CSCI 106.

[2] Students who have not taken any programming classes may substitute with CSCI 110/CSCI 110L - Beginning Programming with Python and Lab.

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
CSCI 206	Progressive Web App Development [1]	3
CSCI 260	Introduction to Database	3
	Semester Credit Hours	**6**
Spring Semester		
CSCI 306	Web Page Design III	3
CSCI 310	Advanced Programming (Python) [2]	2
	Semester Credit Hours	**5**
Second Year		
Fall Semester		
CSCI 310	Advanced Programming (Data Science with Python)	2
CSCI 337	User Interface Design	3
	Semester Credit Hours	**5**
	Total Semester Credit Hours	**16**

[1] It is assumed that students are familiar with basic HTML and CSS; otherwise the students will need to take CSCI 106.

[2] Students who have not taken any programming classes may substitute with CSCI 110/CSCI 110L - Beginning Programming with Python and Lab.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.

- Submit the “Intent to Graduate” form to the Registrar’s Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's “Intent to Graduate” does not automatically move to a later graduation date.

Construction Electrical

Program Description

The AAS degree in Construction Electrical is designed to prepare students for a wide range of opportunities in the construction electrical field. The curriculum incorporates courses in building materials, estimating, planning and scheduling, installations, codes, safety, tools, calculations, and print reading, as well as Essential Learning courses that develop supervisory skills. Career options include obtaining a position as an apprentice electrician, journeyman, electrician, electrical installer, or maintenance and repair electrician.

Contact Information

CMU Tech
Office of Student Services, Kayenta Hall 102
2508 Blichmann Avenue
970.255.2670

Programs of Study

Associates

- Construction Electrical (AAS) (p. 284)

Certificates

- Construction Electrical (Technical Certificate) (p. 286)

Construction Electrical (AAS)

Degree: Associate of Applied Science
Major: Construction Electrical
Program Code: 1392

The AAS degree in Construction Electrical is designed to prepare students for a wide range of opportunities in the Construction Electrical field. The curriculum incorporates courses in building materials, estimating, planning and scheduling, installations, codes, safety, tools, calculations, and print reading. Career options include obtaining a position as an apprentice electrician, journeyman electrician, electrical installer, or maintenance and repair electrician.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Apply principles of grammar and vocabulary in the documentation required to perform the duties of a construction electrician. (Communication Fluency)
2. Apply Mathematical concepts and practices that are required to properly calculate electrical formulas, and linear measurements. Quantitative Fluency)
3. Evaluate evidence discovered during the diagnosis/troubleshooting of electrical systems and apply those findings to strategies to properly repair these systems. (Critical Thinking)

4. Describe the scope and application of principle features of the field of study, including core practices of a construction electrician. (Applied Learning)
5. Demonstrate personal and professional ethical behavior as applied to a construction electrician. (Specialized Knowledge)
6. Demonstrate mastery of the current terminology in the construction electrician industry. (Specialized Knowledge)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Specific to this program:

- 64 semester hours total for the AAS, Construction Electrical.
- A minimum of 16 credits taken at CMU in no fewer than two semesters.

Essential Learning Requirements

(16 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
Communication		
ENGL 111	English Composition I-GTCO1	3
SPCH 101	Interpersonal Communication	3
Mathematics		
MATH 108	Technical Mathematics (or higher) [1]	4
Other Essential Learning Core Courses		
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
Total Semester Credit Hours		**16**

[1] MATH 108 is a 4 semester credit hour course; however, if a student completes a higher-level, Essential Learning eligible Mathematics course it must be at least 4 semester credit hours

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Total Semester Credit Hours		**2**

Program Specific Degree Requirements

(46 semester hours, must earn a grade of “C” or better in each course.

Code	Title	Semester Credit Hours
Required Courses		
ELCE 102	Electrical Blueprint Reading	4
ELCE 110	House Wiring	4
ELCE 120	Commercial Wiring	4
ELCE 124	Electrical Safety	1
ELCE 130	National Electrical Code I	4
ELCE 135	National Electrical Code II	4
ELCE 144	Grounding and Bonding	1
ELCE 150	DC Circuit Fundamentals	4
ELCE 155	AC Circuit Fundamentals	4
ELCE 167	Electrical Maintenance	4
ELCE 220	Industrial Controls	4
ELCE 225	Introduction to PLCs	4
ELCE 229	AC/DC Variable Speed Drive	2

ELCE 263	Specific Wiring for Structured Cabling Systems	2
Total Semester Credit Hours		**46**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ELCE 102	Electrical Blueprint Reading	4
ELCE 110	House Wiring	4
ELCE 150	DC Circuit Fundamentals	4
MATH 108	Technical Mathematics (or higher) [1]	4
KINE 100	Health and Wellness	1
	Semester Credit Hours	**17**
Spring Semester		
ELCE 120	Commercial Wiring	4
ELCE 124	Electrical Safety	1
ELCE 130	National Electrical Code I	4
ELCE 144	Grounding and Bonding	1
ELCE 155	AC Circuit Fundamentals	4
KINA Activity Course		1
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
ELCE 135	National Electrical Code II	4
ELCE 225	Introduction to PLCs	4
ELCE 263	Specific Wiring for Structured Cabling Systems	2
ENGL 111	English Composition I-GTCO1	3
Essential Learning Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
	Semester Credit Hours	**16**
Spring Semester		
ELCE 167	Electrical Maintenance	4
ELCE 220	Industrial Controls	4
ELCE 229	AC/DC Variable Speed Drive	2
SPCH 101	Interpersonal Communication	3
Essential Learning Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
	Semester Credit Hours	**16**
	Total Semester Credit Hours	**64**

[1] MATH 108 is a 4 semester credit hour course; however, if a student completes a higher-level, Essential Learning eligible Mathematics course it must be at least 4 semester credit hours

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Construction Electrical (Technical Certificate)

Award: Technical Certificate
Program of Study: Construction Electrical
Program Code: 1316

This certificate in Construction Electrical is designed to prepare students for an apprenticeship electrician opportunity in the Construction Electrical field. The curriculum incorporates courses in building materials, installations, codes, safety, tools, calculations, and print reading. Career options include obtaining a position as an: apprentice electrician, or electrical installer.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Demonstrate personal and professional ethical behavior as applied to a construction electrician. (Specialized Knowledge, Ethical Reasoning)
2. Demonstrate basic knowledge of terminology in the construction electrician industry. (Specialized Knowledge)
3. Apply basic mathematical concepts that are required for an entry-level employment in the construction electrician field. (Quantitative Fluency)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(30 semester hours, must earn a grade of "C" or better in each course and maintain a 2.00 cumulative GPA or higher in coursework.)

Code	Title	Semester Credit Hours
Required Courses		
ELCE 102	Electrical Blueprint Reading	4
ELCE 110	House Wiring	4
ELCE 120	Commercial Wiring	4
ELCE 124	Electrical Safety	1
ELCE 130	National Electrical Code I	4
ELCE 144	Grounding and Bonding	1
ELCE 150	DC Circuit Fundamentals	4
ELCE 155	AC Circuit Fundamentals	4
MATH 108	Technical Mathematics (or higher) [1]	4
Total Semester Credit Hours		**30**

[1] MATH 108 is a 4-semester credit hour course; however, if a student completes a higher-level, Essential Learning eligible Mathematics course it must be at least 4 semester credit hours.

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ELCE 102	Electrical Blueprint Reading	4
ELCE 110	House Wiring	4
ELCE 150	DC Circuit Fundamentals	4
MATH 108	Technical Mathematics (or higher) [1]	4
	Semester Credit Hours	**16**
Spring Semester		
ELCE 120	Commercial Wiring	4
ELCE 124	Electrical Safety	1
ELCE 130	National Electrical Code I	4
ELCE 144	Grounding and Bonding	1
ELCE 155	AC Circuit Fundamentals	4
	Semester Credit Hours	**14**
	Total Semester Credit Hours	**30**

[1] MATH 108 is a 4-semester credit hour course; however, if a student completes a higher-level, Essential Learning eligible Mathematics course it must be at least 4 semester credit hours.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the “Intent to Graduate” form to the Registrar’s Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's “Intent to Graduate” does not automatically move to a later graduation date.

Construction Management

Program Description

Construction managers plan, direct and coordinate a wide variety of construction projects, including the building of all types of residential, commercial and industrial structures, and roads and bridges. Construction managers coordinate and supervise the construction process from the conceptual development stage through final construction, ensuring the project is completed on time and within budget. They are salaried or self-employed managers who oversee construction supervisors and workers. They are also responsible for the safety of the work environment. Potential majors must be comfortable with mathematics, technical instruction, physical science, computers and software programs. They should work well under pressure and have good oral and written communication skills. This degree is intended to provide students with the needed knowledge, skills and abilities to be successful in this fast-paced challenging environment.

Contact Information

Department of Computer Science and Engineering
Confluence Hall
1410 North 7th Street
Grand Junction, CO, 81501
970.248.1400

Programs of Study Bachelors/Minors

- Bachelor of Science Construction Management + Master of Business Administration (3+2) (p. 288)
- Construction Management (BS) (p. 289)

Bachelor of Science Construction Management + Master of Business Administration (3+2)

At Colorado Mesa University the Bachelor of Science degree in Construction Management and Masters of Business Administration 3+2 program is designed to prepare students with knowledge and skills required to be successful managers and leaders in a challenging and rapidly changing construction industry.

Construction Management is the discipline of planning, organizing, directing and controlling the labor, material and equipment required to construct and deliver a completed residential, commercial, heavy civil or industrial construction project to a private or public owner. Construction management is a team effort with each participant working to achieve the project objectives of delivering the project on or ahead of schedule, at or under budget, achieving the required level of standards and quality, maintaining a safe project site, and having a minimal impact on the natural environment.

This program is also the undergraduate component of the 3+2 program, in which students can earn a Bachelor of Science in Construction Management and a Master of Business Administration (MBA, as described below) in five years. Through careful planning and coordination students can complete their four-year degree and their graduate degree

simultaneously. For more information please see 3 + 2 MBA Program Information.

The Colorado Mesa University Master of Business Administration (MBA) degree is a challenging program designed to prepare graduates for the changing business world. The degree is awarded after successful completion of 36-45 semester hours of rigorous study. The program is designed to provide the student with a broad background in business while allowing the student to focus on a specified area of study, if desired. To this end, students acquire knowledge of management operations; an appreciation of the interrelationships involved in business; an understanding of the economic, political and social environment in which businesses function; and behavioral skills that are essential in the manager's role in the implementation of business decisions. The MBA program endeavors to provide an atmosphere conducive to the development of each student's ability to think in a creative manner and to effectively problem solve. The program makes extensive use of seminars, group projects, case studies and independent research. More information about our MBA Program can be found at MBA Program Information.

Construction Management (BS)

Degree: Bachelor of Science
Major: Construction Management
Program Code: 3180

Construction managers plan, direct, and coordinate a wide variety of construction projects, including the building of all types of residential, commercial and industrial structures, roads, and bridges. They are salaried or self-employed managers who oversee construction supervisors and workers. Construction managers coordinate and supervise the construction process from the conceptual development stage through final construction, ensuring the project is completed on time and within budget. They are also responsible for the safety of the work environment.

Potential majors must be comfortable with mathematics, technical instruction, physical science, computers, and software programs. They should work well under pressure and have good oral and written communication skills. They are managers of processes and people and must excel in both technical and human interaction skills.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Develop knowledge and skills to observe, analyze, make inferences, communicate and problem solve. (Critical Thinking)
2. Create professional Construction Management work products and presentations, independently and collaboratively. (Specialized Knowledge)
3. Communicate clearly, appropriately, and persuasively to the identified audience, both orally and in writing. (Communication Fluency)
4. Analyze construction documents, materials, means and methods, and other communications critically, reason logically, and apply analysis methods correctly to develop appropriate conclusions. (Quantitative Fluency)
5. Utilize current industry trends and technology that facilitate efficient workflows. (Information Literacy, Specialized Knowledge)
6. Identify, formulate and solve construction related problems by applying knowledge of mathematics, science, innovation, construction materials, means and methods. (Specialized Knowledge, Quantitative Literacy)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 113	College Algebra-GTMA1 (or higher) [2]	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
ECON 201	Principles of Macroeconomics-GTSS1	3
or ECON 202	Principles of Microeconomics-GTSS1	
Select one other Social and Behavioral Science course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [3]		
PHYS 111	General Physics I-GTSC1 [2]	3
PHYS 111L	General Physics I Laboratory-GTSC1	1
Select one Natural Sciences course		3
Total Semester Credit Hours		**31**

[1] Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

[2] This is a 4 semester credit hour course. 3 credits apply to the Essential Learning requirements and 1 credit applies to general elective credit.

[3] One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(27 semester hours)

Code	Title	Semester Credit Hours
ACCT 201	Principles of Financial Accounting	3
STAT 200	Probability and Statistics-GTMA1	3
MATH 114	Trigonometry and Analytic Geometry	3
CONC 101	Construction Safety and Regulations	3
CONC 116	Building Materials	3
CONC 161	Building Mechanical/Electrical	3
CONC 208	Construction Equipment	3
CONC 218	Surveying	3
CONC 228	Estimating and Cost Control	3
Total Semester Credit Hours		**27**

Program Specific Degree Requirements

(46 semester hours, must earn a "C" or better in each course)

Code	Title	Semester Credit Hours
Core Courses		
BUGB 351	Business Law I	3
FINA 301	Managerial Finance	3
HRMA 371	Human Resource Management [1]	3
CONM 234	Graphic Communication for Construction Management	3
Concentration Courses		
CONM 181	Principles of Construction Management	3
CONM 316	Construction Materials and Methods	3
CONM 341	Estimating and Bidding for Vertical Construction	3
or CONM 342	Estimating and Bidding for Horizontal Construction	
CONM 361	Advanced MEP Systems	3
CONM 362	Structure Analysis - Statics/Materials Strength	3
CONM 370	Managing the Regulatory Environment	3
or CONM 375	Sustainability in the Built Environment	
CONM 380	Construction Project Management	3
CONM 462	Soil and Foundation Construction	3
CONM 462L	Soil and Foundation Construction Laboratory	1
CONM 472	Construction Planning and Scheduling	3
CONM 475	Construction Company and Financial Management	3
Total Semester Credit Hours		**43**

Code	Title	Semester Credit Hours
Restricted Elective		
Select one of the following:		3
CONM 485	Construction Management Issues	
CONM 495	Independent Study	
CONM 499	Construction Internship	
Total Semester Credit Hours		**3**

[1] MANG 201 is a potential prerequisite for HRMA 371.

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours. 10 semester hours, 1 hour must be upper division

Code	Title	Semester Credit Hours
MATH 113	College Algebra-GTMA1	1
PHYS 111	General Physics I-GTSC1	1
Select additional electives		8
Total Semester Credit Hours		**10**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
CONC 101	Construction Safety and Regulations	3
CONC 116	Building Materials	3
MATH 113	College Algebra-GTMA1	4
CONM 181	Principles of Construction Management	3
	Semester Credit Hours	**16**
Spring Semester		
Essential Learning - Humanities		3
ENGL 112	English Composition II-GTCO2	3
CONC 161	Building Mechanical/Electrical	3
CONC 208	Construction Equipment	3
KINE 100	Health and Wellness	1
KINA Activity		1
	Semester Credit Hours	**14**
Second Year		
Fall Semester		
ACCT 201	Principles of Financial Accounting	3
ECON 201 or ECON 202	Principles of Macroeconomics-GTSS1 or Principles of Microeconomics-GTSS1	3
CONM 234	Graphic Communication for Construction Management	3
CONC 228	Estimating and Cost Control	3
PHYS 111 & 111L	General Physics I-GTSC1 and General Physics I Laboratory-GTSC1	5
	Semester Credit Hours	**17**
Spring Semester		
MATH 114	Trigonometry and Analytic Geometry	3
CONC 218	Surveying	3
Essential Learning - Social and Behavioral Science		3
Essential Learning - Natural Science		3
General Elective		3
	Semester Credit Hours	**15**
Third Year		
Fall Semester		
ESSL 200	Essential Speech	1
ESSL 290	Maverick Milestone	3
BUGB 351	Business Law I	3
CONM 316	Construction Materials and Methods	3
CONM 341 or CONM 342	Estimating and Bidding for Vertical Construction or Estimating and Bidding for Horizontal Construction	3
CONM 370 or CONM 375	Managing the Regulatory Environment or Sustainability in the Built Environment	3
	Semester Credit Hours	**16**
Spring Semester		
HRMA 371	Human Resource Management	3
STAT 200	Probability and Statistics-GTMA1	3
CONM 361	Advanced MEP Systems	3
CONM 362	Structure Analysis - Statics/Materials Strength	3
CONM 380	Construction Project Management	3
	Semester Credit Hours	**15**
Fourth Year		
Fall Semester		
Essential Learning - Fine Arts		3
Essential Learning - History		3
CONM 472	Construction Planning and Scheduling	3
FINA 301	Managerial Finance	3
General Elective		3
	Semester Credit Hours	**15**
Spring Semester		
CONM 462	Soil and Foundation Construction	3
CONM 462L	Soil and Foundation Construction Laboratory	1
CONM 475	Construction Company and Financial Management	3
Restricted Elective [1]		3
General Elective		2
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**120**

[1] If student opts to take CONM 499, it should be planned between Junior and Senior years.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.

- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Construction Technology

Program Description

The AAS in Construction Technology with an emphasis in Supervision is designed to prepare students for a wide range of opportunities in the construction field that require management skills. The curriculum incorporates courses in building materials and testing, estimating, planning and scheduling, project management, and other supervisory and essential learning courses that develop management skills. Career options include obtaining a position as a purchasing manager, salesperson, crew supervisor, or project manager in the field of construction.

Students wishing to further their education with a four-year degree can do so seamlessly with a Bachelor of Science in Colorado Mesa University's Construction Management program.

Contact Information

CMU Tech
Office of Student Services, Kayenta Hall 102
2508 Blichmann Avenue
970.255.2670

Programs of Study

Associates

- Supervision, Construction Technology (AAS) (p. 292)

Supervision, Construction Technology (AAS)

Degree: Associate of Applied Science
Major: Construction Technology
Emphasis: Supervision
Program Code: 1372

The AAS degree in Construction Technology with an emphasis on Supervision is designed to prepare students for a wide range of opportunities in the Construction field that require management skills. The curriculum incorporates courses in building materials and testing, estimating, planning and scheduling, project management, and other supervisory and Essential Learning courses that develop management skills. Career options include obtaining a position as a purchasing estimator, salesperson, crew supervisor, or project manager in the field of construction.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Demonstrate the fundamental skill in the oral and written language as required to effectively communicate within the construction industry. (Communication Fluency)
2. Demonstrate blueprint reading skills, and the surveying skills necessary to function in the profession. (Specialized Knowledge)

3. Interpret, locate, organize and evaluate problems and tasks that arise in the building industry, solve these through the use of information resource skills necessary to the construction industry. (Critical Thinking)
4. Describe the scope and application of principle features of the field of study, including core practices in the construction industry. (Specialized Knowledge)
5. Demonstrate the mastery of OSHA safety standards in the construction industry. Generate a substantially error free product or process for the workforce. (Applied Learning)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Specific to this degree:

- 63 semester hours total for the AAS, Construction Technology, Supervision.

Essential Learning Requirements

(15 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
Communication		
ENGL 111	English Composition I-GTCO1	3
Select one of the following:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communication	
SPCH 102	Speechmaking	
Mathematics		
MATH 107	Career Math	3
Other Essential Learning Core Courses		
ECON 201	Principles of Macroeconomics-GTSS1	3
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
Total Semester Credit Hours		**15**

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Total Semester Credit Hours		**2**

Program Specific Degree Requirements

(46 semester hours, must earn a “C” or better in each course)

Code	Title	Semester Credit Hours
Core Courses		
CONC 101	Construction Safety and Regulations	3
CONC 104	Architectural/Civil Print Reading	2
CADT 106	Computer Aided Design	3
CONC 116	Building Materials	3
CONC 117	Building Materials Testing	3
CONC 161	Building Mechanical/Electrical	3
CONC 208	Construction Equipment	3
CONC 218	Surveying	3
CONC 228	Estimating and Cost Control	3
CONC 234	Commercial/Industrial Plans	2
CONC 245	Project Management	3
CONC 251	Construction Prep: Codes, Permits	3

CONC 265	Planning and Scheduling for the Construction Supervisor	3
Total Semester Credit Hours		**37**

Code	Title	Semester Credit Hours
Restricted Electives		
Select 9 semester hours of the following:		9
CADT (Instructor Advice)		
CONC (Instructor Advice)		
ACCT 201	Principles of Financial Accounting	
MANG 201	Principles of Management	
HRMA 371	Human Resource Management	
BUGB 351	Business Law I	
BUGB 352	Business Law II	
CHEM 121 & 121L	Principles of Chemistry-GTSC1 and Principles of Chemistry Laboratory-GTSC1	
PHYS 111 & 111L	General Physics I-GTSC1 and General Physics I Laboratory-GTSC1	
STAT 200	Probability and Statistics-GTMA1	
MARK 231	Principles of Marketing	
FLAS Spanish		
Total Semester Credit Hours		**9**

Suggested Course Plan

First Year		
Fall Semester		
ENGL 111	English Composition I-GTCO1	3
MATH 107	Career Math	3
CONC 101	Construction Safety and Regulations	3
CONC 104	Architectural/Civil Print Reading	2
CONC 116	Building Materials	3
KINE 100	Health and Wellness	1
KINA 1XX	Activity	1
	Semester Credit Hours	**16**
Spring Semester		
Select one of the following:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communication	
SPCH 102	Speechmaking	
CONC 218	Surveying	3
CONC 117	Building Materials Testing	3
CONC 161	Building Mechanical/Electrical	3
CONC 208	Construction Equipment	3
CONC 234	Commercial/Industrial Plans	2
	Semester Credit Hours	**17**
Second Year		
Fall Semester		
Social Sciences, Natural Science, Fine Arts or Humanities		3
ECON 201	Principles of Macroeconomics-GTSS1	3
CONC 228	Estimating and Cost Control	3
CONC 251	Construction Prep: Codes, Permits	3
CONC 265	Planning and Scheduling for the Construction Supervisor	3
	Semester Credit Hours	**15**
Spring Semester		
CONC 245	Project Management	3
Restricted Elective		3
Restricted Elective		3
Restricted Elective		3
CADT 106	Computer Aided Design	3
	Semester Credit Hours	**15**
	Total Semester Credit Hours	**63**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Criminal Justice

Program Description

Criminal Justice practitioners and scholars are highly qualified, multi-skilled public safety professionals who collaborate with other entities in the American criminal justice system as well as the general public to prevent and control crime, ensure due process, rehabilitate convicted offenders, and implement evidence-based practices.

The Criminal Justice Leadership and Policy program is a post-baccalaureate academic program offered in the Department of Social and Behavioral Sciences, leading to a Master of Arts in Criminal Justice Leadership and Policy (MACJLP) degree. The MACJLP program ensures the highest quality of education by offering collective learning experiences that emphasize leadership, policy, and administration, which enable students to pursue numerous career paths and promotional advancement within the criminal justice field.

The Bachelor of Arts (BA) in Criminal Justice is designed to provide students interested in careers in the American justice system with the knowledge, communication, and critical thinking skills necessary for success in their field. The degree will also assist students with upward mobility in their area of employment. Graduates secure positions in policing, courts, victim services, probation, parole, and other aspects of corrections. Many also use this degree as the starting point in their pursuit of a law degree or graduate school.

The Bachelor of Applied Science (BAS) in Criminal Justice combines the POST requirements with the academic rigor of the baccalaureate degree.

The Associate of Applied Science (AAS) in Criminal Justice is designed for students who have completed or wish to complete the POST Academy program at CMU Tech and incorporates instruction gained from the Peace Officer Standards and Training (POST) program. Students in the AAS program must complete the essential learning requirements and choose additional policing-related courses either before or after completing the academy. Completion of the AAS in Criminal Justice may provide graduates with promotional opportunities in law enforcement areas, such as police and sheriff departments, state law enforcement agencies, probation and parole offices, liquor and marijuana enforcement, or wildlife enforcement. Law enforcement agencies in some areas require an AAS degree for entry-level positions.

The Criminal Justice minor is designed to provide students interested in the American justice system with the knowledge, communication, and critical thinking skills necessary for success in their field. The Forensic Investigation minor combines courses in criminal justice with forensic investigation courses. It provides a student with a solid foundation in forensic investigation and the recognition and collection of physical evidence. Students are better prepared to apply investigative concepts and techniques in the criminal justice profession.

The criminal justice program sponsors the Criminal Justice Association club, the Mock Trial club, and a local chapter of the criminal justice honor society, Alpha Phi Sigma. Through active membership in these organizations, students learn from current practitioners in the field, become involved in community service projects, and take part in regional and national conferences and competitions.

Special Requirements

The Associate of Applied Science (AAS) degree is based on completing the Peace Officer Standards and Training (POST) program at CMU Tech. (See the POST entry elsewhere in this section). Students who have completed the POST program must complete the essential learning requirements and five additional specified courses to earn an AAS. Students can move seamlessly to the BAS.

Contact Information

Associate Degree:
CMU Tech
Office of Student Services, Kayenta Hall 102
2508 Blichmann Avenue
970.255.2670

Baccalaureate and Graduate Degrees:
Department of Social and Behavioral Sciences
Houston Hall
970.248.1696

Programs of Study

Associates

- Criminal Justice (AAS) (p. 304)

Bachelors/Minors

- Criminal Justice (BA) (p. 297)
- Criminal Justice (Minor) (p. 306)
- Forensic Investigation - Criminal Justice (Minor) (p. 307)
- POST Academy, Criminal Justice (BAS) (p. 300)

Graduate

- Criminal Justice Leadership and Policy (MA) (p. 295)

Criminal Justice Leadership and Policy (MA)

Degree: Master of Arts
Major: Criminal Justice Leadership and Policy
Program Code: 8701

This program is no longer accepting new students.

The Criminal Justice Leadership and Policy program is a post-baccalaureate academic program offered in the Department of Social and Behavioral Sciences, leading to a Master of Arts in Criminal Justice Leadership and Policy (MACJLP) degree.

Criminal Justice practitioners and scholars are highly qualified, multi-skilled public safety professionals who collaborate with other entities in the American criminal justice system as well as the general public to prevent and control crime, ensure due process, rehabilitate convicted offenders, and implement evidence-based practices.

The MACJLP program is a six semester (including summers) academic program. Admission into the program is competitive. The MACJLP program ensures the highest quality of education by offering collective learning experiences that emphasize leadership, policy, and administration, which enable students to pursue numerous career paths and promotional advancement within the criminal justice field. Graduates of the MACJLP program are well positioned to secure those employment

and promotional opportunities in policing, the courts system, corrections, or continuing graduate studies.

Important information about this program:

- MACJLP Program acceptance (see the catalog and program website for specific admissions requirements).
- CRMJ 511 Foundational Seminar needs to be completed within a student's first 15 credit hours.
- Completion of a culminating graduate-level project required - Master's Culminating Experience

All CMU masters-level graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, information literacy, and ethical reasoning. In addition to these campus-wide student learning outcomes, a graduate of this program will be able to:

1. Critique criminal justice policies and practices based upon advanced knowledge of criminological theory and recommend new practices or policies as needed. (Communication Fluency, Critical Thinking)
2. Evaluate complex ethical issues in criminal justice and develop pragmatic resolutions/recommendations to address those issues. (Ethical Reasoning
3. Recommend and implement advanced leadership theories and skills in Criminal Justice program and policy development and administration. (Specialized Knowledge, Communication Fluency)
4. Design and conduct a capstone project using qualitative and/or quantitative research methods related to evidence-based practices, leadership, or administration of criminal justice practices and policies. (Quantitative Fluency, Critical Thinking, Information Literacy)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

All CMU master-level graduates are expected to demonstrate proficiency in critical thinking, communication fluency, quantitative reasoning, ethical reasoning, information literacy, and specialized knowledge/applied learning.

The following institutional requirements apply to all CMU graduate-level degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Graduate certificates consist of a minimum of 5 credit hours. Master's degrees consist of a minimum of 30 credit hours. Doctoral degrees consist of a minimum of 60 credit hours.
- All credits in a graduate program must be minimally at the 500-level.
- At least fifty percent of the credit hours must be taken at CMU.
- Students must achieve a 3.00 cumulative GPA or higher in all CMU coursework.
- Students may not apply coursework with a grade lower than a "B" toward graduation requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Graduate Degree Requirements (p. 87)" in this catalog for a complete list of graduation requirements.
- All policies for graduate degrees are outlined in the Graduate Policies and Procedures Manual, Capstone Guidelines Manual, and Thesis and Dissertation Guidelines Manual, all of which are provided on the Graduate Studies website.

Specific to this degree:

- 33 semester hours for the Master of Arts in Criminal Justice Leadership and Policy.
- MACJLP Program acceptance (see the catalog and program website for specific admissions requirements).
- CRMJ 511 Foundational Seminar to be completed within a student's first 15 credit hours.
- All courses and course sequencing are required and must be completed at CMU or through applicable transfer credit.
- Complete a culminating graduate-level project (Master's Culminating Experience).

Program Specific Requirements

Code	Title	Semester Credit Hours
Core Courses (18 Hours)		
CRMJ 511	Foundational Seminar	3
CRMJ 512	Public Policy Analysis	3
CRMJ 513	Ethics in Criminal Justice Leadership	3
CRMJ 514	Research Methods and Data Analysis	3
CRMJ 515	Advanced Criminological Theory	3
CRMJ 516	Leadership in Criminal Justice	3
Elective Courses (12 Hours Total)		
Two courses from the following: (6 Hours)		*6*
CRMJ 520	Budgeting and Finance in Criminal Justice	
CRMJ 521	Evidence-Based Practices in Criminal Justice	
CRMJ 522	Strategic Planning for Criminal Justice Agencies	
Two courses from the following: (6 Hours)		*6*
CRMJ 523	Police Management and Administration	
CRMJ 524	Legal Issues in Criminal Justice	
CRMJ 525	Critical Issues in Corrections	
CRMJ 526	Contemporary Issues in Criminal Justice	
Master's Culminating Experience (3 Hours)		
CRMJ 593	Master's Culminating Experience	3

Other Requirements	
Completion of Culminating Experience	
Total Semester Credit Hours	**33**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
Mod 1 (3 Hours)		
CRMJ 516	Leadership in Criminal Justice	3
Mod 2 (3 Hours)		
CRMJ 512	Public Policy Analysis	3
	Semester Credit Hours	**6**
Spring Semester		
Mod 1 (3 Hours)		
CRMJ 511	Foundational Seminar	3
Mod 2 (3 Hours)		
CRMJ 514	Research Methods and Data Analysis	3
	Semester Credit Hours	**6**
Summer Semester		
CRMJ 5XX Elective Course		3
	Semester Credit Hours	**3**
Second Year		
Fall Semester		
Mod 1 (3 Hours)		
CRMJ 5XX Elective Course		3
Mod 2 (3 Hours)		
CRMJ 5XX Elective Course		3
	Semester Credit Hours	**6**
Spring Semester		
Mod 1 (3 Hours)		
CRMJ 513	Ethics in Criminal Justice Leadership	3
Mod 2 (3 Hours)		
CRMJ 515	Advanced Criminological Theory	3
	Semester Credit Hours	**6**
Summer Semester		
CRMJ 5XX Elective Course		3
	Semester Credit Hours	**3**
Third Year		
Fall Semester		
Mod 1 (3 Hours)		
CRMJ 593	Master's Culminating Experience [1]	3
	Semester Credit Hours	**3**
	Total Semester Credit Hours	**33**

[1] CRMJ 593 may be repeated up to four times to allow a student sufficient time to complete the Culminating Experience. Each time CRMJ 593 is taken, the grade received will be factored into the student GPA.
Successful completion of CRMJ 593 is required to earn the MA in Criminal Justice Leadership and Policy graduate degree.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Criminal Justice (BA)

Degree: Bachelor of Arts
Major: Criminal Justice
Program Code: 3706

The Bachelor of Arts in Criminal Justice is designed to provide students interested in careers in the justice system with the knowledge, communication and critical thinking skills necessary for success in their field. Graduates secure positions in policing, courts, and corrections. Many also use this degree as the starting point in their pursuit of a law degree. Finally, the degree will assist students in their upward mobility in their area of employment.

Important information for this degree:

- Students must maintain a 2.5 cumulative GPA or higher in all CMU coursework.
- Selective Admissions: All students intending to obtain a BA or BAS in Criminal Justice will initially be enrolled as pre-criminal justice majors. Students must earn a "C" or better in CRMJ 110 and CRMJ 201 prior to enrolling in any additional program specific courses. Core courses CRMJ 110, CRMJ 201, CRMJ 310, CRMJ 320, and CRMJ 328 must be completed with a "C" or better before students will be admitted into the BA/BAS major. Students must also complete MATH 110 (or higher) and ENGL 111 – both with a

"C" or better prior to acceptance as a Criminal Justice major. GPA within these subjects must be at least 2.5. Overall cumulative GPA after 45 credit hours (approximately 3 semesters) must be at least 2.5. Please see the Criminal Justice Student Handbook for more information. Transfer students will be evaluated on a case-by-case basis.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Discuss the history and practice of each segment of the Criminal Justice System: police, courts, and corrections.\ (Specialized Knowledge)
2. Examine diversity issues and assess their impact on work and ethical practices in criminal justice (Ethical Reasoning/Personal and Social Responsibility).
3. Apply major criminological theories to criminal behavior. (Critical Thinking)
4. Recognize quantitative and qualitative research methods, navigate scholarly information systems, identify and select quality sources and materials, and assess the validity and reliability of data (Quantitative Fluency and Information Literacy).
5. Demonstrate proficient oral communication and writing skills that are formal and professional in nature.\ (Communication Fluency)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this program:

Students must maintain a 2.5 cumulative GPA or higher in all CMU coursework.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 110	Mathematical Investigations-GTMA1 (or higher)	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences [2]		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [3]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

[1] Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

[2] Recommended: POLS 101, PSYC 150, SOCO 260, or SOCO 264.

[3] One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(10 semester hours - must receive a grade of C or better in all courses)

Code	Title	Semester Credit Hours
STAT 215	Statistics for Social and Behavioral Sciences	4
Select two consecutive classes in the same foreign language		6
Total Semester Credit Hours		**10**

Program Specific Degree Requirements

(46-48 semester hours - must receive a grade of "C" or better in all core and restricted elective courses and maintain a 2.5 cumulative GPA or higher in coursework in this area.)

Code	Title	Semester Credit Hours
Core Courses		
CRMJ 110	Orientation to Criminal Justice Inquiry	1
CRMJ 201	Introduction to Criminal Justice	3
CRMJ 302	Ethics in Criminal Justice	3
CRMJ 310	The Police Process	3
CRMJ 315	Research Methods in Criminal Justice	3
CRMJ 320	Corrections	3
CRMJ 328	American Court Systems	3
CRMJ 370	Criminology	3
Capstone		
Select one of the following:		3
CRMJ 465	Contemporary Issues in Criminal Justice	
CRMJ 490	Comparative Criminal Justice	
CRMJ 499	Internship	
SOCI 497	Structured Research	
Criminal Justice Electives		
Select at least one course from each subfield: [1]		12-13
Policing		
CRMJ 280 & 280L	Crime Scene Processing and Crime Scene Processing Laboratory	
CRMJ 335	Community Policing	
CRMJ 410	Criminal Investigations	
CRMJ 415	Counterterrorism and Law Enforcement	
CRMJ 435	White-Collar Crimes	
Courts		
CRMJ 301	Criminal Procedure	
CRMJ 405	Civil Liability for Law Enforcement and Corrections	
CRMJ 412	Constitutional Law	
CRMJ 420	Criminal Law	
CRMJ 425	Trial, Evidence, and Legal Advocacy	
Corrections		
CRMJ 340	Community Corrections	
CRMJ 440	Capital Punishment	
CRMJ 470	Restorative Justice	
CRMJ 480	Inside-Out Prison Exchange	
Criminal Justice Theory		
CRMJ 311	Victimology	
CRMJ 325	Juvenile Justice and Delinquency	
CRMJ 330	Intimate Partner Violence	
CRMJ 345	Mental Illness and Crime	
CRMJ 360	Crime and Deviance	
CRMJ 375	Women and Crime	
CRMJ 380	Crisis Intervention in Criminal Justice	
CRMJ 413	Violent and Serial Offenders	
CRMJ 445	Media and Crime	
Total Semester Credit Hours		**37-38**

[1] Criminal Justice Electives taken beyond the required 12-13 semester hours can also satisfy the restricted elective requirement.

Code	Title	Semester Credit Hours
Restricted Electives		
Select 9-10 semester hours chosen from any of the above listed Capstone or Criminal Justice Electives courses, CRMJ 396 Topics, CRMJ 496 Topics, or CRMJ 495 Independent Study. [1]		9-10
Total Semester Credit Hours		**9-10**

[1] Internship may not be repeated if taken to meet the capstone requirement and may only count as 1 to 3 credits toward the 6 restricted credits. 300 and 400-level Topics courses may be taken more than one time if the course has a different topic.

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours. 25-27 semester hours; additional hours of upper division may be needed.

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
Essential Learning - Natural Science with Lab		4
Essential Learning - Natural Science		3
KINE 100	Health and Wellness	1
CRMJ 201	Introduction to Criminal Justice	3
CRMJ 110	Orientation to Criminal Justice Inquiry	1
	Semester Credit Hours	**15**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
Essential Learning - Mathematics		3
CRMJ 328	American Court Systems	3
CRMJ 310	The Police Process	3
CRMJ 320	Corrections	3
Activity Course Selection		1
	Semester Credit Hours	**16**
Second Year		
Fall Semester		
Foundation Course - Foreign Language		3
STAT 215	Statistics for Social and Behavioral Sciences	4
Essential Learning - Social/Behavioral Sciences		3
Essential Learning - History		3
Essential Learning - Humanities		3
	Semester Credit Hours	**16**
Spring Semester		
Foundation Course - Foreign Language		3
Essential Learning - Fine Arts		3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Essential Learning - Social/Behavioral Sciences		3
CRMJ 315	Research Methods in Criminal Justice	3
	Semester Credit Hours	**16**
Third Year		
Fall Semester		
CRMJ 302	Ethics in Criminal Justice	3
Criminal Justice Elective - Policing		3
Criminal Justice Elective - Courts		3
Criminal Justice Elective - Corrections		3
Criminal Justice Restricted Elective		3
	Semester Credit Hours	**15**
Spring Semester		
CRMJ 370	Criminology	3
Criminal Justice Elective - Criminal Justice Theory		3
General Elective		3
Restricted Electives (2 courses)		6
	Semester Credit Hours	**15**
Fourth Year		
Fall Semester		
Restricted Elective		3
General Electives (4 courses)		12
	Semester Credit Hours	**15**
Spring Semester		
Capstone Course		3
General Electives (3 courses)		9
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**120**

Advising and Graduation Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

POST Academy, Criminal Justice (BAS)

Degree: Bachelor of Applied Science
Major: Criminal Justice
POST Academy
Program Code: 3701

The Bachelor of Applied Science in Criminal Justice is designed to provide students interested in careers in the justice system, and specifically in policing/law enforcement, with the knowledge, communication, and critical thinking skills necessary for success in their field. Graduates will be job ready and able to secure positions in various policing/law enforcement positions (e.g., police officer, deputy sheriff, parole officer, etc.). The degree combines the technical skills required within entry-level law enforcement positions with the academic rigor of the baccalaureate degree. The degree will also assist students in their upward mobility in their area of employment.

Important information about this program:

- To be admitted to the BAS degree, certain prerequisites must be satisfied. Please see the Social and Behavioral Sciences department head or program faculty for complete requirements and application form.
- All students intending to obtain a BA or BAS in Criminal Justice will initially be enrolled as pre-criminal justice majors. Students must earn a "C" or better in CRMJ 110 and CRMJ 201 prior to enrolling in any additional program specific courses. Core courses CRMJ 110, CRMJ 201, CRMJ 310, CRMJ 320, and CRMJ 328 must be completed with a "C" or better before students will be admitted into the BA/BAS major. Students must also complete MATH 110 (or higher) and ENGL 111 – both with a "C" or better prior to acceptance as a Criminal Justice major. GPA within these subjects must be at least 2.5. Overall cumulative GPA after 45 credit hours (approximately 3 semesters) must be at least 2.5. Please see the Criminal Justice Student Handbook for more information. Transfer students will be evaluated on a case-by-case basis.
- Students are encouraged to attend the Western Colorado Peace Officers Academy (WCPOA). Up to 31 credits can be transferred from other Colorado POST approved academies associated with accredited institutions of higher learning or through existing articulation agreements with Colorado Mesa University. Students wishing to transfer credit from all other academies (e.g., agency, private, or out-of-state academies) can earn up to 30 credit hours through the Credit for Prior Learning program.
- It is highly recommended that students complete all required coursework prior to enrolling in the POST Academy. Please see the criminal justice student handbook for more information.
- Students must maintain a 2.5 cumulative GPA or higher in all CMU coursework.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Discuss the history and practice of each segment of the Criminal Justice System: police, courts, and corrections.\ (Specialized Knowledge)
2. Examine diversity issues and assess their impact on work and ethical practices in criminal justice (Ethical Reasoning/Personal and Social Responsibility).
3. Apply major criminological theories to criminal behavior. \ (Critical Thinking)
4. Recognize quantitative and qualitative research methods, navigate scholarly information systems, identify and select quality sources and materials, and assess the validity and reliability of data (Quantitative Fluency and Information Literacy).
5. Demonstrate proficient oral communication and writing skills that are formal and professional in nature.\ (Communication Fluency)
6. Demonstrate proficiency in basic skills (driving, firearms, and arrest control) required for entry level policing.\ (Applied Learning)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU Bachelor of Applied Science (BAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Completion of an appropriate Associate of Applied Science (AAS) degree from an accredited institution is required for the BAS; exceptions must be approved by the BAS advisor and department head.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 33 upper-division credits.
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements. The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this degree:

- Students must maintain a 2.5 cumulative GPA or higher in all CMU coursework.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for

your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 110	Mathematical Investigations-GTMA1	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences [2]		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [3]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

1 Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.
2 Recommended: POLS 101, PSYC 150, SOCO 260, or SOCO 264.
3 One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
KINA 127	Physical Conditioning [1]	1
Essential Learning Capstone [2]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

1 Must be taken simultaneously with POST Academy.
2 Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(10 semester hours - must receive a grade of C or better in all courses)

Code	Title	Semester Credit Hours
STAT 215	Statistics for Social and Behavioral Sciences	4
Select two consecutive classes in the same foreign language		6
Total Semester Credit Hours		**10**

Program Specific Degree Requirements

(73-74 semester hours, must earn a grade of "C" or better in each course and maintain a 2.5 cumulative GPA toward coursework in this area.)

- It is highly recommended that students complete all required coursework prior to enrolling in the POST Academy. Please see the criminal justice student handbook for more information.

Code	Title	Semester Credit Hours
Core Courses		
CRMJ 110	Orientation to Criminal Justice Inquiry	1
CRMJ 201	Introduction to Criminal Justice	3
CRMJ 302	Ethics in Criminal Justice	3
CRMJ 310	The Police Process	3
CRMJ 315	Research Methods in Criminal Justice	3
CRMJ 320	Corrections	3
CRMJ 328	American Court Systems	3
CRMJ 370	Criminology	3
Capstone		
Select one of the following:		3
CRMJ 465	Contemporary Issues in Criminal Justice	
CRMJ 490	Comparative Criminal Justice	
CRMJ 499	Internship	
SOCI 497	Structured Research	
Criminal Justice Electives		
Select at least one course from each subfield: [1]		12-13
Policing		
CRMJ 280 & 280L	Crime Scene Processing and Crime Scene Processing Laboratory	
CRMJ 335	Community Policing	
CRMJ 410	Criminal Investigations	
CRMJ 415	Counterterrorism and Law Enforcement	
CRMJ 435	White-Collar Crimes	
Courts		
CRMJ 301	Criminal Procedure	
CRMJ 405	Civil Liability for Law Enforcement and Corrections	
CRMJ 412	Constitutional Law	
CRMJ 420	Criminal Law	
CRMJ 425	Trial, Evidence, and Legal Advocacy	
Corrections		
CRMJ 340	Community Corrections	
CRMJ 440	Capital Punishment	
CRMJ 470	Restorative Justice	
CRMJ 480	Inside-Out Prison Exchange	
Criminal Justice Theory		

CRMJ 311	Victimology	
CRMJ 325	Juvenile Justice and Delinquency	
CRMJ 330	Intimate Partner Violence	
CRMJ 345	Mental Illness and Crime	
CRMJ 360	Crime and Deviance	
CRMJ 375	Women and Crime	
CRMJ 380	Crisis Intervention in Criminal Justice	
CRMJ 413	Violent and Serial Offenders	
CRMJ 445	Media and Crime	
Total Semester Credit Hours		**37-38**

[1] Criminal Justice Electives take beyond the required 12-13 semester hours can also satisfy the restricted elective requirement.

Code	Title	Semester Credit Hours
Restricted Electives		
Select 6 semester hours chosen from any of the above listed Capstone or Criminal Justice Electives courses, CRMJ 396 Topics, CRMJ 496 Topics, or CRMJ 495 Independent Study. [1]		6
Total Semester Credit Hours		**6**

[1] Internship may not be repeated if taken to meet the capstone requirement and may only count as 1 to 3 credits toward the 6 restricted credits. 300 and 400-level Topics courses may be taken more than one time if the course has a different topic.

Code	Title	Semester Credit Hours
POST Academy [1]		
CRJW 101	Basic Police Academy I	4
CRJW 102	Basic Police Academy II	5
CRJW 103	Basic Police Academy III	7
CRJW 104	Basic Police Academy IV	6
CRJW 106	Arrest Control	3
CRJW 107	Law Enforcement Driving	2
CRJW 108	Firearms	3
Total Semester Credit Hours		**30**

[1] Must receive a grade of "C" or better in all courses. Courses are taken as part of a state approved POST Academy.

Notes on Bachelor of Applied Science: 36 Semester Hours taken as part of a state approved Associate of Applied Science (AAS) degree to include CRMJ 201 and CRMJ 310 or other approved courses within an established AAS program. Credit hours that are applicable to requirements as listed for this degree will be applied accordingly. Student must complete all course requirements outlined for the degree.

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
Essential Learning - Natural Science with Lab		4
Essential Learning - Natural Science		3
KINE 100	Health and Wellness	1
CRMJ 201	Introduction to Criminal Justice	3
CRMJ 110	Orientation to Criminal Justice Inquiry	1
	Semester Credit Hours	**15**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
Essential Learning - Mathematics		3
CRMJ 328	American Court Systems	3
CRMJ 310	The Police Process	3
CRMJ 320	Corrections	3
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
Foundation Course - Foreign Language		3
STAT 215	Statistics for Social and Behavioral Sciences	4
Essential Learning - Social/Behavioral Sciences		3
Essential Learning - History		3
Essential Learning - Humanities		3
	Semester Credit Hours	**16**
Spring Semester		
Foundation Course - Foreign Language		3
Essential Learning - Fine Arts		3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Essential Learning - Social/Behavioral Sciences		3
CRMJ 315	Research Methods in Criminal Justice	3
	Semester Credit Hours	**16**
Third Year		
Fall Semester		
CRMJ 302	Ethics in Criminal Justice	3
Criminal Justice Elective - Policing		3
Criminal Justice Elective - Courts		3
Criminal Justice Elective - Corrections		3
Restricted Elective		3
	Semester Credit Hours	**15**
Spring Semester		
CRMJ 370	Criminology	3
Criminal Justice Elective - Criminal Justice Theory		3
Capstone Course		3
Restricted Elective		3
	Semester Credit Hours	**12**
Fourth Year		
Fall Semester		
CRJW 101	Basic Police Academy I	4
CRJW 102	Basic Police Academy II	5
CRJW 103	Basic Police Academy III	7
CRJW 104	Basic Police Academy IV	6
CRJW 106	Arrest Control	3
CRJW 107	Law Enforcement Driving	2
CRJW 108	Firearms	3
KINA 127	Physical Conditioning	1
	Semester Credit Hours	**31**

Spring Semester	
Open	
Semester Credit Hours	**0**
Total Semester Credit Hours	**120**

Advising and Graduation
Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for her/his intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audits on a regular basis and should discuss questions or concerns with their advisors or academic department heads. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Criminal Justice (AAS)

Degree: Associate of Applied Science
Major: Criminal Justice
Program Code: 1360

This program is designed for students who want the credentials of an Associate's Degree combined with the Colorado Peace Officer Standards and Training (POST) certification. It is highly recommended that students seeking this degree complete their essential learning and elective requirements prior to enrolling in the CMU Tech POST Academy. Once a student has passed all the minimum requirements of Colorado POST he or she has a timeline of ONLY 3 years to be hired by a law enforcement agency. Successful completion of the POST Academy is a requirement of this degree.

Upon successful completion of the requirements, the student would be awarded an A.A.S. degree in Criminal Justice by Colorado Mesa University. This degree provides graduates with an advantage in the competitive law enforcement career market. Graduates are qualified to apply for jobs in police departments, sheriff's offices, county jails, alternative sentencing programs, Colorado State Parks, Dept. of Corrections and the State Patrol. Current professionals may increase their promotional opportunities.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Criminal Process: Explain the functions of the criminal justice system in protecting the constitutional rights of all individuals within the United States, regardless of citizenship. (Specialized Knowledge)
2. Basic Law: Explain the current rules for peace officer conduct as it pertains to arrest, search and seizure. (Specialized Knowledge, Information Literacy)
3. Victim's Right: Explain the laws relating to victim rights and community resources available for crime victim's services. (Specialized Knowledge, Information Literacy)
4. Community Policing: Identify and recognize community policing and the necessary elements for implementation of community policing practice and philosophy and recognize community partnerships as an integral component in community policing and problem solving. (Critical Thinking
5. Professional Behavior: Identify the traits that officers should exemplify and explain the benefits of professional and ethical behavior to the officer, department, and community. (Personal and Social Responsibility)
6. Patrol Observation and Perception: Analyze and interpret information gathered during patrol operations, differentiate between proactive and reactive patrol, and demonstrate different patrol methods. (Critical Thinking)
7. Traffic Code: Recognize elements of traffic code violations as defined in Title 42 C.R.S. (Specialized Knowledge)
8. Preliminary Investigations: Identify and explain procedures for responding to a crime scene, conducting an initial crime scene investigation, interviewing victims, witnesses, and suspects, and conducting a follow up investigation. (Communication Fluency, Critical Thinking, Specialized Knowledge)
9. Report Writing: Apply the basic requirements of written communication in law enforcement. (Communication Fluency)
10. Wellness: Explain why wellness is an integral component of the law enforcement profession, and the necessity of being in good physical condition. (Personal and Social Responsibility)
11. Tactical Casualty Care: Apply lifesaving medical actions in the context of a hazardous situation such as an active shooter, specific medical interventions, and skills. (Specialized Knowledge, Quantitative Literacy)

12. Identify, utilize and cite various sources of policing information in academic assignments and on-the-job requirements. (Information Literacy).
13. Use program-level mathematical concepts and methods to understand, analyze, and explain policing issues in quantitative terms (Quantitative Fluency)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(15 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
Communication		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
or SPCH 102	Speechmaking	
Mathematics		
MATH 108	Technical Mathematics (or higher) [1,2]	3
Other Essential Learning Core Courses		
Select two of the following:		6
PSYC 150	General Psychology-GTSS3	
SPCH 102	Speechmaking	
SOCO 144	Marriage and Families-GTSS3	
SOCO 260	General Sociology-GTSS3	
PHIL 120	Ethics-GTAH3	
Total Semester Credit Hours		**15**

[1] MATH 108 is a 4 semester credit hour course; however, if a student completes a higher-level, Essential Learning eligible Mathematics course at 3 semester credit hours, that course would fulfill the Mathematics Essential Learning requirement.

[2] MATH 110 or higher is required for BA or BAS in Criminal Justice.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
KINA 127	Physical Conditioning [1]	1
Total Semester Credit Hours		**2**

[1] KINA 127 is taken simultaneously with POST Academy.

Program Specific Degree Requirements

(43 semester hours)

Code	Title	Semester Credit Hours
CRJW 101	Basic Police Academy I	4
CRJW 102	Basic Police Academy II	5
CRJW 103	Basic Police Academy III	7
CRJW 104	Basic Police Academy IV	6
CRJW 106	Arrest Control	3
CRJW 107	Law Enforcement Driving	2
CRJW 108	Firearms	3
CRMJ 110	Orientation to Criminal Justice Inquiry	1
CRMJ 201	Introduction to Criminal Justice	3
SPCH 101	Interpersonal Communication	3
POLS 101	American Government-GTSS1	3

SOCO 264	Social Problems-GTSS3	3
Total Semester Credit Hours		**43**

Suggested Course Plan

Due to a potential variation in semester credit hours for the Essential Learning Mathematics credits, the following sequencing results in variable credit hours; however, students in this major must complete a minimum of 60 semester credit hours, including satisfactory completion of all required courses, for satisfactory completion of degree.

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
SPCH 101	Interpersonal Communication	3
POLS 101	American Government-GTSS1	3
Essential Learning Social and Behavioral Sciences or Humanities course		3
Essential Learning Social and Behavioral Sciences or Humanities course		3
	Semester Credit Hours	**15**
Spring Semester		
ENGL 112 or SPCH 102	English Composition II-GTCO2 or Speechmaking	3
CRMJ 110	Orientation to Criminal Justice Inquiry	1
CRMJ 201	Introduction to Criminal Justice	3
SOCO 264	Social Problems-GTSS3	3
MATH 108	Technical Mathematics (or higher) [1]	3-4
KINE 100	Health and Wellness	1
	Semester Credit Hours	**14-15**
Second Year		
Fall Semester		
CRJW 101	Basic Police Academy I	4
CRJW 102	Basic Police Academy II	5
CRJW 103	Basic Police Academy III	7
CRJW 104	Basic Police Academy IV	6
CRJW 106	Arrest Control	3
CRJW 107	Law Enforcement Driving	2
CRJW 108	Firearms	3
KINA 127	Physical Conditioning	1
	Semester Credit Hours	**31**
	Total Semester Credit Hours	**60-61**

[1] MATH 108 is a 4 semester credit hour course; however, if a student completes a higher-level, Essential Learning eligible Mathematics course at 3 semester credit hours, that course would fulfill the Mathematics Essential Learning requirement.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Criminal Justice (Minor)

Minor: Criminal Justice
Program Code: M701

This minor is designed to provide students interested in careers in the justice system with the knowledge, communication and critical thinking skills necessary for success in their field. Graduates secure positions in policing, probation, parole and other aspects of corrections. Many also use this degree as the starting point in their pursuit for a law degree.

Graduates of this minor will be able to:

1. Discuss the history and practice of each segment of the Criminal Justice System: police, courts, and corrections. (Specialized Knowledge)
2. Examine diversity issues and assess their impact on work and ethical practices in criminal justice (Ethical Reasoning/Personal and Social Responsibility).
3. Apply major criminological theories to criminal behavior. (Critical Thinking)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or

"Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(24 semester hours)

Code	Title	Semester Credit Hours
Core Courses		
CRMJ 201	Introduction to Criminal Justice	3
CRMJ 302	Ethics in Criminal Justice	3
CRMJ 310	The Police Process	3
CRMJ 320	Corrections	3
CRMJ 328	American Court Systems	3
CRMJ 370	Criminology	3
Total Semester Credit Hours		**18**

Code	Title	Semester Credit Hours
Restricted Electives		
Select two of the following:		6
CRMJ 301	Criminal Procedure	
CRMJ 335	Community Policing	
CRMJ 345	Mental Illness and Crime	
CRMJ 380	Crisis Intervention in Criminal Justice	
CRMJ 396	Topics	
CRMJ 410	Criminal Investigations	
CRMJ 415	Counterterrorism and Law Enforcement	
CRMJ 420	Criminal Law	
CRMJ 425	Trial, Evidence, and Legal Advocacy	
CRMJ 470	Restorative Justice	
CRMJ 490	Comparative Criminal Justice	
CRMJ 499	Internship	
Total Semester Credit Hours		**6**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student’s responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar’s Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar’s Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the “Intent to Graduate” form.

If a student’s petition for graduation is denied, it will be their responsibility to consult the Registrar’s Office regarding next steps.

Forensic Investigation - Criminal Justice (Minor)

Minor: Forensic Investigation - Criminal Justice
Program Code: M717

This minor combines courses in criminal justice with forensic investigation courses. It provides a student with a solid foundation in forensic investigation, and the recognition and collection of physical evidence. Students are better prepared to apply investigative concepts and techniques in the criminal justice profession.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(24 semester hours)

Code	Title	Semester Credit Hours
Core Courses [1]		
ANTH 270 & 270L	Death and Forensic Science and Death and Forensic Science Laboratory	3
ANTH 478	Professional Issues in Forensic Science	3
CRMJ 280 & 280L	Crime Scene Processing and Crime Scene Processing Laboratory	3
CRMJ 301	Criminal Procedure	3
CRMJ 410	Criminal Investigations	3
Select three of the following:		9
ANTH 331 & 331L	Forensic Anthropology and Forensic Anthropology Laboratory	
BIOL 217 & 217L	Forensic Entomology and Forensic Entomology Laboratory	
CRMJ 302	Ethics in Criminal Justice	
CRMJ 370	Criminology	
CRMJ 405	Civil Liability for Law Enforcement and Corrections	
CRMJ 413	Violent and Serial Offenders	
CRMJ 425	Trial, Evidence, and Legal Advocacy	
Total Semester Credit Hours		**24**

[1] Lectures and labs must be taken together for credit towards graduation.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the "Intent to Graduate" form.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Culinary Arts

Program Description

The Culinary Arts program trains students interested in developing professional food preparation and management skills. From future chefs to foodies, students will learn basic to advanced cooking and baking techniques. Small class sizes and modernized culinary labs energize both students and highly-skilled instructors to share and hone key industry skills, as well as to gain critical real-world applications to culinary marketing, and dining room and restaurant management.

Contact Information

CMU Tech
Office of Student Services, Kayenta Hall 102
2508 Blichmann Avenue
970.255.2670

Programs of Study

See also Baking and Pastry (p. 177).

Associates

- Culinary Arts (AAS) (p. 309)

Certificates

- Food Preparation (Technical Certificate) (p. 311)

Culinary Arts (AAS)

Degree: Associate of Applied Science
Major: Culinary Arts
Program Code: 1350

Students in the Culinary Arts Program learn the fundamental skills and techniques needed to succeed in the professional kitchen. Areas of study include; safety and sanitation, nutrition, food preparation, baking, dining room management, beverage service , hospitality supervision, cost controls, and purchasing. The curriculum meets the requirements of the American Culinary Federation for sanitation, nutrition, and supervision training. Upon completion of the program, students will be prepared for an entry-level position in the broad and expanding hospitality industry, as well as prepared to continue for advanced study in the Bachelor of Applied Science in Hospitality Management.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Compare and contrast a variety of cuisines based on ingredients, preparation methods, serving styles, and culture to define key characteristics of a region or country's cuisine. (Applied Learning)
2. Apply appropriate mathematical concepts to the field of culinary arts as a basis for menu planning, purchasing and recipe conversion. (Quantitative Fluency)
3. Apply food safety concepts to demonstrate personal hygiene guidelines, consumer safety, and sanitation procedures for preparation, storage, and service of food. (Critical Thinking/ Specialized Knowledge)
4. Demonstrate an ability to work as part of a team to prepare and serve food to established standards in a professional setting. (Applied Learning/ Communication Fluency)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Specific to this degree:

- 62 semester hours total for the AAS, Culinary Arts.

Essential Learning Requirements

(15 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
Communication		
ENGL 111	English Composition I-GTCO1	3
Select one of the following courses:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communication	
SPCH 102	Speechmaking	
Mathematics		
MATH 107	Career Math (or higher)	3
Other Essential Learning Core Courses		
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
Total Semester Credit Hours		**15**

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Total Semester Credit Hours		**2**

Program Specific Degree Requirements

(45 semester hours, must earn a grade of "C" or better in each course.)

- Additional expenses - Students in Culinary Arts may be required to purchase or have cooking tools and appropriate chef's clothing. This does not include required textbooks. These costs vary with student needs and brand or quality of tools purchased.
- Students in Culinary Arts must complete four credits of either CUAR 293 Restaurant Operations Practicum or CUAR 281 Internship. CUAR 293 must be completed in a single semester. CUAR 281 can be divided into one to four credit internships over multiple semesters.

Code	Title	Semester Credit Hours
Core Courses		
CUAR 100	Culinary Program Fundamentals	3
CUAR 101	Food Safety & Sanitation	2
CUAR 115	Introduction to Sustainable Cuisine	3
CUAR 125	Introduction to Foods	3
CUAR 129	Center of the Plate	3
CUAR 145	Introduction to Baking	3
CUAR 156	Nutrition for the Hospitality Professional	3
CUAR 190	Dining Room Management	3
CUAR 238	American Regional Cuisine	3
CUAR 245	International Cuisine	3
CUAR 251	Advanced Garde Manger and Hors D'Oeuvres	3
CUAR 255	Supervision in the Hospitality Industry	3
CUAR 262	Purchasing for the Hospitality Industry	3
CUAR 293 or CUAR 281	Restaurant Operations Practicum Internship	4
VITE 179	Wines, Spirits, and Beers	3
Total Semester Credit Hours		**45**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
CUAR 100	Culinary Program Fundamentals (1st Mod)	3
CUAR 101	Food Safety & Sanitation (1st Mod)	2
CUAR 125	Introduction to Foods (2nd Mod)	3
CUAR 145	Introduction to Baking (2nd Mod)	3
ENGL 111	English Composition I-GTCO1	3
MATH 107	Career Math	3
	Semester Credit Hours	**17**
Spring Semester		
CUAR 115	Introduction to Sustainable Cuisine	3
CUAR 129	Center of the Plate (1st Mod)	3
CUAR 238	American Regional Cuisine (2nd Mod)	3
CUAR 262	Purchasing for the Hospitality Industry	3
VITE 179	Wines, Spirits, and Beers	3
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
CUAR 156	Nutrition for the Hospitality Professional	3
CUAR 190	Dining Room Management	3
CUAR 245	International Cuisine	3
CUAR 251	Advanced Garde Manger and Hors D'Oeuvres	3
Select one of the following:		3
ENGL 112	English Composition II-GTCO2 (Select one of the following:)	
SPCH 101	Interpersonal Communication	
SPCH 102	Speechmaking	
	Semester Credit Hours	**15**
Spring Semester		
CUAR 255	Supervision in the Hospitality Industry	3
CUAR 293 or CUAR 281	Restaurant Operations Practicum or Internship	4
KINE 100	Health and Wellness	1
KINE Activity		1
Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
	Semester Credit Hours	**15**
	Total Semester Credit Hours	**62**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course

sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Food Preparation (Technical Certificate)

Award: Technical Certificate
Program of Study: Food Preparation
Program Code: 1142

Students enrolled in the Technical Certificate in Food Preparation learn the fundamental skills and techniques of food and bakery production, safety, and sanitation. Upon completion of the program, students will be prepared for an entry-level position in the broad and expanding hospitality industry, as well as prepared to continue for advanced study in the Associate of Applied Science in Culinary Arts or the Bachelor of Applied Science in Hospitality Management.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Demonstrate an ability to develop and prepare a menu that showcases organization, knife skills, cooking methods, and plate presentation. (Applied Learning)
2. Apply appropriate mathematical concepts to the field of culinary arts as a basis for menu planning, purchasing and recipe conversion. (Quantitative Fluency)
3. Apply food safety concepts to demonstrate personal hygiene guidelines, consumer safety, and sanitation procedures for preparation, storage, and service of food.(Critical Thinking/ Specialized Knowledge)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/ certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(17 semester hours, must earn a grade of "C" or better in each course.)

- Additional expenses - Students in Culinary Arts are required to purchase cooking tools and uniforms. This does not include required textbooks. These costs vary with student needs and brand or quality of tools purchased.

Code	Title	Semester Credit Hours
Required Courses		
CUAR 100	Culinary Program Fundamentals	3
CUAR 101	Food Safety & Sanitation	2
CUAR 115	Introduction to Sustainable Cuisine	3
CUAR 125	Introduction to Foods	3
CUAR 129	Center of the Plate	3
CUAR 145	Introduction to Baking	3
Total Semester Credit Hours		**17**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
CUAR 100	Culinary Program Fundamentals (1st Mod)	3
CUAR 101	Food Safety & Sanitation (1st Mod)	2
CUAR 125	Introduction to Foods (2nd Mod)	3
CUAR 145	Introduction to Baking (2nd Mod)	3
	Semester Credit Hours	**11**
Spring Semester		
CUAR 115	Introduction to Sustainable Cuisine	3
CUAR 129	Center of the Plate (1st Mod)	3
	Semester Credit Hours	**6**
	Total Semester Credit Hours	**17**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Cybersecurity

Program Description

Professional Certificate in Cybersecurity

The Professional Certificate in Cybersecurity includes courses and topics from basic computer and system security to more advanced topics in network and application security areas of information assurance.

Cybersecurity (Minor)

The minor in Cybersecurity, a collaborative effort between Computer Information Systems for Business (CISB) and Computer Science (CSCI) faculty, provides a solid base of understanding in macro cybersecurity strategies and principles, as well as an in-depth review of applied cybersecurity tools and techniques

These programs are excellent enhancements to computer science and related fields. They are designed to provide students interested in careers in cybersecurity areas with the knowledge and skills necessary for success in this very important and demanding field of information assurance.

Contact Information

Department of Computer Science and Engineering
Confluence Hall
1410 North 7th Street
Grand Junction, CO, 81501
970.248.1400

Programs of Study Bachelors/Minors

- Cybersecurity (Minor) (p. 314)

Certificates

- Cybersecurity (Professional Certificate) (p. 313)

Cybersecurity (Professional Certificate)

Award: Professional Certificate
Program of Study: Cybersecurity
Major Code: 1364

The certificate in Cybersecurity is designed to provide students with the knowledge and skills needed to engage in activities pertaining to protecting computer systems, networks, applications, and data. The program also prepares students for successfully completing internationally recognized certifications such as Certified Information Systems Security Professional (CISSP), CEH (Certified Ethical Hacker), etc.

All CMU certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, critical thinking, and personal and social responsibility. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Identify strengths and weaknesses of competing cyber defense tools and defend a choice for a given situation. (Critical Thinking)
2. Write simple scripts in scripting languages (e.g., to automate system administration tasks). (Applied Learning)
3. Evaluate the security of computer systems, networks, and applications. (Applied Learning)
4. Demonstrate clear effective communication on the importance of cybersecurity. (Communication Fluency)
5. Demonstrate independent learning and use of new technologies in cybersecurity. (Specialized Knowledge)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU Professional Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Primarily 300-400 level courses.
- At least fifty percent of the credit hours must be taken at CMU.
- 2.00 cumulative GPA or higher in all CMU coursework.
- A grade lower than “C” in the program of study will not be counted toward meeting the certificate’s requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(9 semester hours, must earn a grade of "C" or better in each course.)

Code	Title	Semester Credit Hours
Required Courses		
CSCI 370	Computer Security [1]	3
CSCI 420	Software Security	3

CSCI 465	Network/Application Security	3
Total Semester Credit Hours		**9**

[1] Consult with a Computer Science faculty advisor regarding prerequisite classes that might be necessary to take.

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
CSCI 370	Computer Security	3
	Semester Credit Hours	**3**
Spring Semester		
CSCI 420	Software Security	3
	Semester Credit Hours	**3**
Second Year		
Fall Semester		
CSCI 465	Network/Application Security	3
	Semester Credit Hours	**3**
	Total Semester Credit Hours	**9**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Cybersecurity (Minor)

Minor: Cybersecurity
Program Code: M451

The interdisciplinary Cybersecurity Minor is a collaborative effort between the Computer Information Systems for Business (CISB) faculty and the Computer Science (CSCI) faculty. It is designed to prepare students for managerial decision-making in an information security context. Such positions require in-depth knowledge of established cybersecurity principles, tools, and techniques as well as knowledge of how those principles can be aligned to larger organizational strategies. The Interdisciplinary Cybersecurity Minor is intended for students who are interested in expanding their knowledge and skills in the application of cybersecurity. An Interdisciplinary Cybersecurity Minor, coupled with any major, can increase the employment opportunities available across a wide variety of areas.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives can be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with

your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(18 semester hours)

Code	Title	Semester Credit Hours
CISB 211	Introduction to Cybersecurity	3
CISB 301	Digital Forensics	3
CISB 311	Fundamentals of Cloud Security	3
CSCI 370	Computer Security	3
CSCI 420	Software Security	3
CSCI 465	Network/Application Security	3
Total Semester Credit Hours		**18**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the "Intent to Graduate" form.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Dance

Program Description

The Colorado Mesa University Dance program offers a broad, liberal arts approach to studying dance and movement. CMU's BA in Dance curriculum is unique in that we provide a strong technical foundation across a variety of dance styles. Students develop versatility and an appreciation for historical roots and current trends in the field. Within a supportive learning community, students engage in rigorous technical training and are invited to explore creative experimentation and collaborative possibilities.

Dance majors are immersed in a holistic approach to dance studies with coursework in various dance forms, somatic practices, conditioning, movement analysis, dance history, choreography, pedagogy, dance company, and experiential anatomy. Students have numerous opportunities to choreograph, perform, and teach throughout their degree. Students develop skills in various technical styles, critical thinking, creative experimentation/scholarship, interdisciplinary collaboration, and communication within a supportive learning environment.

Special Requirements

Students seeking admission as dance majors must successfully audition for acceptance into the program. Admission to the University does not guarantee admission into one of these programs. Prospective theatre majors should consult the Theatre Department website or contact the department directly for information regarding audition dates and requirements. Prospective students interested in departmental scholarships must audition no later than May 1 of the year they seek admission.

Contact Information

Department of Theatre Arts
Moss Performing Arts Center 141
970.248.1242

Programs of Study

Bachelors/Minors

- Dance (BA) (p. 315)
- Dance (BFA) (p. 319)
- Dance (Minor) (p. 322)

Dance (BA)

Degree: Bachelor of Arts
Major: Dance
Program Code: 3257

The BA in Dance offers a broad, liberal arts approach to the study of dance and movement. Dance majors are immersed in a holistic approach to dance studies with coursework in a variety of dance forms, somatic practices, conditioning, movement analysis, dance history, choreography, pedagogy, dance company, and experiential anatomy. Additionally, students have numerous opportunities to choreograph, perform, and teach throughout their degree.

The CMU Dance program is unique in that we offer a strong technical foundation, across a variety of dance styles. Through our diverse

curriculum, students develop versatility and an appreciation for historical roots and current trends in the field. Within a supportive learning community, students engage not only in rigorous technical training, but are also invited to explore creative experimentation and collaborative possibilities.

Through our guest artist series, community engagement programs, and annual participation in the American College Dance Association Conference, our students have numerous opportunities to develop professional and networking skills. These experiences not only offer potential professional connections, but also expose students to other areas of dance scholarship, including current practices in dance medicine, dance psychology, etc. Our dance majors have the unique opportunity to explore additional degrees in other disciplines at CMU that align with their studies in dance and movement.

CMU Dance students are prepared for employment in various aspects of the dance field as performers, choreographers, teachers, and studio owners. Additionally, they are prepared to pursue graduate degrees, specialized certifications in performance, choreography, production, arts management, movement therapy, and numerous related areas of dance and movement research.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Communicate verbally contemporary and enduring concepts concerning Human Culture through participation and/or observation of the performing arts and speech. (Specialized Knowledge/ Communication)
2. Communicate non-verbally contemporary and enduring concepts concerning Human Culture through participation and/or observation of the performing arts and speech. (Specialized Knowledge/ Communication)
3. Create progressively more challenging projects through the use of intellectual and/or practical skills. (Applied Learning)
4. Demonstrate teamwork and problem solving skills through collaboration and cooperation on creative projects. (Critical Thinking)
5. Demonstrate the knowledge, skills, and versatility of the discipline from conceptualization to application. (Applied Learning)
6. Analyze ethical, social, and/or civic challenges and their intersection with the performing arts at the local, national, and global levels. (Personal and Social Responsibility)
7. Find, critically evaluate, and effectively apply relevant sources of information to discipline-specific projects. (Information Literacy)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/ certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 110	Mathematical Investigations-GTMA1	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		

Select one Social and Behavioral Sciences course	3
Select one Social and Behavioral Sciences course	3
Fine Arts	
Select one Fine Arts course	3
Natural Sciences [2]	
Select one Natural Sciences course	3
Select one Natural Sciences course with a lab	4
Total Semester Credit Hours	**31**

[1] Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.
[2] One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(11 semester hours, must pass all courses with a grade of "C" or higher.)

Code	Title	Semester Credit Hours
DANC 220	Moving Anatomy and Wellness	3
DANC 250	Dance Improvisation	2
Two consecutive classes in the same foreign language [1]		6
Total Semester Credit Hours		**11**

Program Specific Degree Requirements

(43 semester hours, must maintain a 2.0 cumulative GPA or higher in coursework in this area). See your academic advisor to ensure repeated courses apply to your program of study.

Code	Title	Semester Credit Hours
Core Courses		
Dance Core		
DANC 222	Dance Conditioning	3
DANC 310	Dance Pedagogy	3
DANC 315	History and Philosophy of Dance	3
DANC 355	Choreography	3
DANC 360	Movement Analysis and Creative Practice	3
DANC 494	Senior Dance Capstone	3
Ballet Technique Courses		
Select two of the following. One must be upper division.		4
DANC 181	Ballet I	
DANC 234	Ballet IIA	
DANC 235	Ballet IIB	
DANC 334	Ballet IIIA	
Jazz Technique Courses		
Select two of the following. One must be upper division.		4
DANC 182	Jazz I	
DANC 232	Jazz IIA	
DANC 233	Jazz IIB	
DANC 332	Jazz IIIA	
Modern Technique Courses		
Select two of the following. One must be upper division.		4
DANC 183	Contemporary Modern I	
DANC 230	Contemporary Modern IIA	
DANC 231	Contemporary Modern IIB	
DANC 330	Contemporary Modern IIIA	
Hip-Hop Technique Courses		
Select two of the following. One must be upper division.		4
DANC 185	Hip Hop I	
DANC 285	Hip Hop II	
DANC 385	Hip Hop III	
Select four additional semester hours of upper-division technique coursework (excluding performance courses)		4
DANC 331	Contemporary Modern IIIB	
DANC 333	Jazz IIIB	
DANC 335	Ballet IIIB	
DANC 385	Hip Hop III	
DANC 430	Contemporary Modern IVA	
DANC 431	Contemporary Modern IVB	
DANC 432	Jazz IVA	
DANC 433	Jazz IVB	
DANC 434	Ballet IVA	
DANC 435	Ballet IVB	
Dance Performance		
Select three of the following (two of which must be upper division):		3
DANC 156	Dance Performance	
DANC 256	Dance Performance	
DANC 356	Dance Performance	
DANC 456	Dance Performance	
Choreography and Production Courses		
Select two of the following (one of which must be upper division):		2
DANC 290	Choreography Practice and Production I	
DANC 390	Choreography Practice and Production II	
DANC 490	Choreography Practice and Production III	
Total Semester Credit Hours		**43**

General Electives

All college-level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours, including 40 upper-division hours. 29 hours, including 10 additional hours of upper-division may be needed. Recommend additional dance support courses in dance technique, dance performance, dance company, choreography practicum and/or theatre courses including: THEA 153, THEA 102, THEA 103, THEA 104, THEA 105.

Code	Title	Semester Credit Hours
Select electives		29
Total Semester Credit Hours		**29**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
KINE 100	Health and Wellness	1
MATH 110	Mathematical Investigations-GTMA1	3
Performance Option - Lower-Division		1
Dance Technique Course		2
Dance Technique Course		2
DANC 220	Moving Anatomy and Wellness	3
	Semester Credit Hours	**15**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
DANC 222	Dance Conditioning	3
Essential Learning - History		3
Essential Learning - Fine Arts		3
KINA Activity		1
Dance Technique Course		2
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
Essential Learning - Social and Behavioral Sciences		3
DANC 250	Dance Improvisation	2
Foundation Course - Foreign Language		3
Dance Technique Course		2
General Elective		3
	Semester Credit Hours	**13**
Spring Semester		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Foundation Course - Foreign Language		3
Dance Technique Course		2
General Electives		5
Choreography and Production Course		1
	Semester Credit Hours	**15**
Third Year		
Fall Semester		
DANC 315	History and Philosophy of Dance	3
Essential Learning - Natural Science		3
Performance Option - Upper-Division		1
Dance Technique Course		2
General Electives		6
DANC 355	Choreography	3
	Semester Credit Hours	**18**
Spring Semester		
Essential Learning - Humanities		3
Essential Learning - Natural Science with Lab		4
Dance Technique Course		2
General Elective		3
DANC 360	Movement Analysis and Creative Practice	3
Choreography and Production Course		1
	Semester Credit Hours	**16**
Fourth Year		
Fall Semester		
DANC 310	Dance Pedagogy	3
Essential Learning - Social and Behavioral Sciences		3
Dance Technique Course - Upper Division		2
Performance Option - Upper-Division		1
General Electives		6
	Semester Credit Hours	**15**
Spring Semester		
DANC 494	Senior Dance Capstone	3
Dance Technique Course		2
Dance Technique Course - Upper Division		2
General Electives		6
	Semester Credit Hours	**13**
	Total Semester Credit Hours	**120**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Dance (BFA)

Degree: Bachelor of Fine Arts
Major: Dance
Program Code: 3267

This program is no longer accepting new students.

The Department of Theatre Arts offers one of the most successful training degree programs in Colorado. The Bachelor of Fine Arts in Dance is focused on helping students acquire a sound understanding of the performing arts in state-of-the-art facilities.

Dance at CMU is thriving, with an array of dance styles, performance opportunities and travel. Modern, jazz, ballet and tap are offered from beginning to professional levels. Other courses include composition, improvisation, pedagogy, history, music analysis, healthy dancer and repertory performance.

The faculty members have professional backgrounds in all forms of dance and musical theatre. With four dance concerts a year, Colorado Mesa University provides students with a chance to choreograph original works and to dance for and with visiting guest artists from the professional dance world. Students travel throughout the United States to share the art of dance with other universities and colleges. Dance at Colorado Mesa University features courses with an emphasis on positive reinforcement from challenging professors and a strong technical foundation. It is a place where dancers can establish lifelong relationships as they strive for excellence in the art of dance.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Communicate verbally contemporary and enduring concepts concerning Human Culture through participation and/or observation of the performing arts and speech. (Specialized Knowledge/ Communication)
2. Communicate non-verbally contemporary and enduring concepts concerning Human Culture through participation and/or observation of the performing arts and speech. (Specialized Knowledge/ Communication)
3. Create progressively more challenging projects through the use of intellectual and/or practical skills. (Applied Learning)
4. Demonstrate teamwork and problem solving skills through collaboration and cooperation on creative projects. (Critical Thinking)
5. Demonstrate the knowledge, skills, and versatility of the discipline from conceptualization to application. (Applied Learning)
6. Analyze ethical, social, and/or civic challenges and their intersection with the performing arts at the local, national, and global levels. (Personal and Social Responsibility)
7. Find, critically evaluate, and effectively apply relevant sources of information to discipline-specific projects. (Information Literacy)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/ certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 110	Mathematical Investigations-GTMA1	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [2]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

[1] Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

[2] One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(12 semester hours, must pass all courses with a grade of "C" or higher.)

Code	Title	Semester Credit Hours
THEA 153	Acting I: Beginning Acting	3
DANC 225		3
Two consecutive classes in the same foreign language [1]		6
Total Semester Credit Hours		**12**

[1] FLAS 114 & FLAS 115 will not fulfill this requirement.

Program Specific Degree Requirements

(58 semester hours, must maintain a 2.0 cumulative GPA or higher in coursework in this area).

Code	Title	Semester Credit Hours
Core Courses		
Dance Core		
DANC 250	Dance Improvisation	2
DANC 255		3
DANC 310	Dance Pedagogy	3
DANC 315	History and Philosophy of Dance	3
DANC 316	History and Philosophy of Dance II	3
DANC 328		3
THEA 401	Career Preparation	3
DANC 494	Senior Dance Capstone	3
Ballet Technique Courses		
Select three of the following:		6
DANC 234	Ballet IIA	
DANC 235	Ballet IIB	
DANC 334	Ballet IIIA	
DANC 335	Ballet IIIB	
DANC 434	Ballet IVA	
DANC 435	Ballet IVB	
Jazz Technique Courses		
Select three of the following:		6
DANC 232	Jazz IIA	
DANC 233	Jazz IIB	
DANC 332	Jazz IIIA	
DANC 333	Jazz IIIB	
DANC 432	Jazz IVA	
DANC 433	Jazz IVB	
Tap Technique Courses		
Select three of the following:		6
DANC 184	Tap I	
DANC 236	Tap IIA	
DANC 237	Tap IIB	
DANC 336	Tap IIIA	
DANC 337	Tap IIIB	
DANC 436	Tap IVA	
DANC 437	Tap IVB	
Modern Technique Courses		
Select three of the following:		6
DANC 183	Contemporary Modern I	
DANC 230	Contemporary Modern IIA	
DANC 231	Contemporary Modern IIB	
DANC 330	Contemporary Modern IIIA	
DANC 331	Contemporary Modern IIIB	
DANC 430	Contemporary Modern IVA	

DANC 431	Contemporary Modern IVB	
Additional Technique Courses		
Select four additional semester hours of technique (excluding performance courses)		4
Performance/Choreography Options		
Select four of the following:		4
DANC 156	Dance Performance	
DANC 256	Dance Performance	
DANC 356	Dance Performance	
DANC 456	Dance Performance	
DANC 290	Choreography Practice and Production I	
DANC 390	Choreography Practice and Production II	
DANC 490	Choreography Practice and Production III	
Dance Support Courses		
Select three semester hours from any Theatre or Dance course		3
Total Semester Credit Hours		**58**

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours, including 40 upper division hours. 13 semester hours, additional hours of upper division may be needed.

Code	Title	Semester Credit Hours
Select electives		13
Total Semester Credit Hours		**13**

Suggested Course Plan

First Year		
Fall Semester		
ENGL 111	English Composition I-GTCO1	3
MATH 110	Mathematical Investigations-GTMA1	3
KINE 100	Health and Wellness	1
THEA 153	Acting I: Beginning Acting	3
Dance Technique Course		2
Dance Technique Course		2
	Semester Credit Hours	**14**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
Essential Learning - History		3
Essential Learning - Fine Arts		3
KINA Activity		1
Performance Option		1
Dance Technique Course		2
Dance Technique Course		2
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
Essential Learning - Social and Behavioral Sciences		3
Foundation Course - Foreign Language		3
DANC 225		3
DANC 250	Dance Improvisation	2
Dance Technique Course		2
Dance Technique Course		2
	Semester Credit Hours	**15**
Spring Semester		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Foundation Course - Foreign Language		3
DANC 255		3
Dance Technique Course		2
Dance Technique Course		2
Performance Option		1
	Semester Credit Hours	**15**
Third Year		
Fall Semester		
Essential Learning - Natural Science		3
DANC 310	Dance Pedagogy	3
Dance Technique Course		2
Dance Technique Course		2
Dance Technique Course		2
General Electives		4
	Semester Credit Hours	**16**
Spring Semester		
Essential Learning - Humanities		3
Essential Learning - Natural Science with Lab		4
DANC 328		3
Dance Technique Course		2
General Elective		2
Performance Option		1
	Semester Credit Hours	**15**
Fourth Year		
Fall Semester		
Essential Learning - Social and Behavioral Sciences		3
DANC 315	History and Philosophy of Dance	3
THEA 401	Career Preparation	3
Dance Technique Course		2
General Elective		3
Performance Option		1
	Semester Credit Hours	**15**
Spring Semester		
General Electives		4
DANC 494	Senior Dance Capstone	3
Dance Technique Course		2
Support Course		3
DANC 316	History and Philosophy of Dance II	3
	Semester Credit Hours	**15**
	Total Semester Credit Hours	**120**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress

towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Dance (Minor)

Minor: Dance
Program Code: M220

The Department of Theatre offers one of the most successful theatre training degree programs in Colorado. Students majoring in Theatre Arts can choose from four distinct concentrations (Acting/Directing, Design/Technical, Music Theatre and Dance) and acquire a sound understanding of the performing arts in our newly built, state-of-the-art facilities.
Dance at CMU is thriving with an array of dance styles, performance opportunities and travel. Modern, jazz, ballet and hip hop are offered from beginning to professional levels. Other courses include somatic practices, conditioning, movement analysis, dance history, choreography, pedagogy, dance company, and experiential anatomy.

Through our diverse curriculum, students develop versatility and an appreciation for historical roots and current trends in the field. Within a supportive learning community, students engage not only in rigorous technical training, but are also invited to explore creative experimentation and collaborative possibilities.

Through our guest artist series, community engagement programs, and annual participation in the American College Dance Association Conference, our students have numerous opportunities to develop professional and networking skills. These experiences not only offer potential professional connections, but also expose students to other areas of dance scholarship, including current practices in dance medicine, dance psychology, etc.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(21 semester hours, 7 hours must be upper-division)

Code	Title	Semester Credit Hours
Required Courses		
DANC 220	Moving Anatomy and Wellness	3
DANC 250	Dance Improvisation	2
Select one of the following theory courses:		3
DANC 315	History and Philosophy of Dance	
DANC 360	Movement Analysis and Creative Practice	
Select 8 semester hours of Technique Courses from the following:		8
DANC 181	Ballet I	
DANC 234	Ballet IIA	
DANC 235	Ballet IIB	
DANC 334	Ballet IIIA	
DANC 335	Ballet IIIB	
DANC 434	Ballet IVA	
DANC 435	Ballet IVB	
DANC 232	Jazz IIA	

DANC 233	Jazz IIB	
DANC 332	Jazz IIIA	
DANC 333	Jazz IIIB	
DANC 432	Jazz IVA	
DANC 433	Jazz IVB	
DANC 185	Hip Hop I	
DANC 285	Hip Hop II	
DANC 385	Hip Hop III	
DANC 183	Contemporary Modern I	
DANC 230	Contemporary Modern IIA	
DANC 231	Contemporary Modern IIB	
DANC 330	Contemporary Modern IIIA	
DANC 331	Contemporary Modern IIIB	
DANC 430	Contemporary Modern IVA	
DANC 431	Contemporary Modern IVB	
Select 1 semester hour of Choreography and Production Practicum courses:		1
DANC 290	Choreography Practice and Production I	
DANC 390	Choreography Practice and Production II	
DANC 490	Choreography Practice and Production III	
Select 2 semester hours of Performance courses:		2
DANC 156	Dance Performance	
DANC 256	Dance Performance	
DANC 356	Dance Performance	
DANC 456	Dance Performance	
Select 2 semester hours of upper-division DANC Electives. DANC courses may be repeated once for credit.		2
Total Semester Credit Hours		**21**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the "Intent to Graduate" form.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Digital Filmmaking

Program Description

Students majoring in the Associate of Applied Science in Digital Filmmaking with an emphasis on Writing/Directing will acquire a sound understanding of the narrative filmmaking process. Delivery of the program is primarily face-to-face with an extensive project-based learning approach.

The Writing/Directing emphasis helps students understand the craft of narrative filmmaking. Majors focus on screenwriting, cinematography, lighting, basic video editing and audio design, directing talent, leadership and supervision, film producing, production management, freelancing, and essential film marketing.

Because filmmaking is a highly collaborative business, students work together on significant projects. This process allows film students to take advantage of each others' acquired skills.

Contact Information

CMU Tech
Office of Student Services, Kayenta Hall 102
2508 Blichmann Avenue
970.255.2670

Programs of Study

Associates[1]

- Digital Filmmaking: Production Design (AAS) (p. 324)
- Digital Filmmaking: Writing/Directing (AAS) (p. 326)

Certificates [1, 2]

- Digital Filmmaking: Animation Principles I (Technical Certificate) (p. 328)
- Digital Filmmaking: Animation Principles II (Technical Certificate) (p. 329)
- Digital Filmmaking: Basic Production Design (Technical Certificate) (p. 333)
- Digital Filmmaking: Basic Writing/Directing (Technical Certificate) (p. 337)
- Digital Filmmaking: Drone Cinematography (Technical Certificate) (p. 330)
- Digital Filmmaking: Intermediate Production Design (Technical Certificate) (p. 335)
- Digital Filmmaking: Intermediate Writing/Directing (Technical Certificate) (p. 338)
- Digital Filmmaking: Production Design Elements (Technical Certificate) (p. 332)
- Digital Filmmaking: Writing/Directing Elements (Technical Certificate) (p. 336)
- Digital Filmmaking: Writing/Directing Principles I (Technical Certificate) (p. 340)
- Digital Filmmaking: Writing/Directing Principles II (Technical Certificate) (p. 341)
- Digital Filmmaking: Writing/Directing Principles III (Technical Certificate) (p. 342)

[1] The Production Design AAS and all three Production Design Technical Certificates are no longer accepting new students.
[2] The Writing/Directing Certificates for Elements, Basic, and Intermediate are no longer accepting new students. These are being replaced by the new Writing/Directing Principles I, II, and III Certificates.

Digital Filmmaking: Production Design (AAS)

Degree: Associate of Applied Science
Major: Digital Filmmaking
Emphasis: Production Design
Program Code: 1303

This program is no longer accepting new students.

The Digital Filmmaking: Production Design emphasis prepares and develops students for entry-level careers in the film, broadcast, and commercial video industries. Digital Filmmaking – Production Design is all about using technology to help further a director's story vision to audiences. During this program, you will cover the in-depth fundamentals of research for the production's style and look. You will also use common research skills, collaboration, non-linear video editors and video compositors. Plus, students learn not only the filmmaking business but information they can use if they want to become freelancers.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Apply business communication using listening, verbal, written, and electronic forms that are needed for entry-level employment (Communication Fluency).
2. Apply math and applied physics concepts for industry to meet job requirements (Quantitative Fluency).
3. Research, evaluate, synthesize, and apply information/data relevant to business, the sciences, and technical careers (Critical Thinking).
4. Demonstrate knowledge of terminology, symbols, business practices, principles, and application of technical skills (Specialized Knowledge/Applied Learning).
5. Perform the applied skill sets to fulfill the needs of entry-level employment (Specialized Knowledge/Applied Learning).
6. Demonstrate ethical, civic, and workplace responsibility as part of professional behavior (Specialized Knowledge/Applied Learning).

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(15 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
Communication		
ENGL 111	English Composition I-GTCO1	3
Select one of the following courses:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communication	
SPCH 102	Speechmaking	
Mathematics		
MATH 110	Mathematical Investigations-GTMA1 (or higher)	3
Other Essential Learning Core Courses		
ENGL 222	Mythology-GTAH2	3
THEA 141	Theatre Appreciation-GTAH1	3
Total Semester Credit Hours		**15**

Other Lower Division Requirements

(2 semester hours)

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Total Semester Credit Hours		**2**

Program Specific Degree Requirements

(42 semester hours, must pass all courses with a grade of "C" or higher.)

Code	Title	Semester Credit Hours
FILM 115	Cinema Design Tools	3
FILM 125	Production Drawing & Design	3
FILM 135	Cinema Editing Aesthetics	3
FILM 145	Commercial & Corporate Video Editing	3
FILM 155	Commercial Audio Design	3
FILM 160	Cinema Previsualization	3
FILM 165	Cinema Production Design	3
FILM 175	Short-Form Video Editing	3
FILM 220	Cinema Audio Design	3
FILM 226	Technical Capstone I	3
FILM 240	Digital Cinematic Effects	3
FILM 250	Episodic Video Editing	3
FILM 260	Freelancing for Creatives	3
FILM 271	Technical Capstone II	3
Total Semester Credit Hours		**42**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
FILM 115	Cinema Design Tools	3
FILM 125	Production Drawing & Design	3
FILM 135	Cinema Editing Aesthetics	3
FILM 145	Commercial & Corporate Video Editing	3
ENGL 111	English Composition I-GTCO1	3
	Semester Credit Hours	**15**
Spring Semester		
FILM 155	Commercial Audio Design	3
FILM 160	Cinema Previsualization	3
FILM 165	Cinema Production Design	3
FILM 175	Short-Form Video Editing	3
MATH 110	Mathematical Investigations-GTMA1	3
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
FILM 220	Cinema Audio Design	3
FILM 226	Technical Capstone I	3
FILM 240	Digital Cinematic Effects	3
FILM 250	Episodic Video Editing	3
Select one of the following:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communication	
SPCH 102	Speechmaking	
	Semester Credit Hours	**15**
Spring Semester		
FILM 260	Freelancing for Creatives	3
FILM 271	Technical Capstone II	3
THEA 141	Theatre Appreciation-GTAH1	3
ENGL 222	Mythology-GTAH2	3
General Elective		1
KINE 100	Health and Wellness	1
Select one Activity course		1
	Semester Credit Hours	**15**
	Total Semester Credit Hours	**60**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Digital Filmmaking: Writing/Directing (AAS)

Degree: Associate of Applied Science
Major: Digital Filmmaking
Emphasis: Writing/Directing
Program Code: 1304

The Digital Filmmaking: Writing/Directing major prepares and develops students for entry-level production and management jobs in the film, broadcast, and documentary video industries. Writing/Directing is all about storytelling. Students write scripts, plan and shoot productions, and complete their projects in postproduction. Majors use common research skills, collaborate, direct talent and crew, set up lighting and sound, and perform non-linear video editing and compositing. They also learn essential entrepreneurial business practices such as budgeting, scheduling, and forming their own video production company.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Perform the required skill sets to fulfill entry-level employment needs in the film and video production industries. (Specialized Knowledge)
2. Apply the physics of light, sound, and electricity to meet the film industry's technical job requirements. (Quantitative Fluency)
3. Apply business communication using listening, verbal, written, and electronic forms needed for entry-level employment with a production company or as a freelance creator. (Communications Fluency)
4. Research, evaluate, synthesize, and apply information/data relevant to above- or below-the-line production careers. (Critical Thinking)
5. Demonstrate ethical, civic, and workplace responsibility as part of professional behavior for the film and video production industry. (Applied Learning)
6. Define and apply film and video terminology, symbols, business practices, principles, and application of technical skills. (Information Literacy)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this degree:

- 61 semester hours total for the AAS, Digital Filmmaking: Writing/Directing.

Essential Learning Requirements

(15 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
Communication		
ENGL 111	English Composition I-GTCO1	3
Select one of the following courses:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communication	
SPCH 102	Speechmaking	
Mathematics		
MATH 110	Mathematical Investigations-GTMA1 (or higher)	3
Other Essential Learning Core Courses		
THEA 141	Theatre Appreciation-GTAH1	3
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts, or Humanities course		3
Total Semester Credit Hours		**15**

Other Lower Division Requirements

(2 semester hours)

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Total Semester Credit Hours		**2**

Program Specific Degree Requirements

(44 semester hours, must pass all courses with a grade of "C" or higher.)

Code	Title	Semester Credit Hours
FILM 110	Film Expression	3
FILM 120	Film Script Analysis	3
FILM 130	Short-Form Screenwriting	3
FILM 139	Professional Documentary Production	3
FILM 141	Film Production Assistant I	1
FILM 142	Film Production Assistant II	1
FILM 144	Sound Design for Film	3
FILM 150	Episodic Screenwriting	3
FILM 170	Short-Form Production	3
FILM 200	Directing Film Actors	1
FILM 209	Production Budget and Scheduling	3
FILM 225	Cinema Capstone I	3
FILM 230	Episodic Production	3
FILM 265	Producing Indie Films	3
FILM 270	Cinema Capstone II	4
FILM 299	Internship	1
THEA 150	Fundamentals of Acting	3
Total Semester Credit Hours		**44**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
FILM 110	Film Expression	3
FILM 120	Film Script Analysis	3
FILM 130	Short-Form Screenwriting	3
FILM 139	Professional Documentary Production	3
FILM 141	Film Production Assistant I	1
THEA 150	Fundamentals of Acting	3
	Semester Credit Hours	**16**
Spring Semester		
FILM 142	Film Production Assistant II	1
FILM 144	Sound Design for Film	3
FILM 150	Episodic Screenwriting	3
FILM 170	Short-Form Production	3
FILM 209	Production Budget and Scheduling	3
MATH 110	Mathematical Investigations-GTMA1	3
	Semester Credit Hours	**16**
Second Year		
Fall Semester		
FILM 200	Directing Film Actors (First Mod)	1
FILM 225	Cinema Capstone I	3
FILM 230	Episodic Production	3
FILM 265	Producing Indie Films	3
ENGL 111	English Composition I-GTCO1	3
Select one KINA Activity course		1
	Semester Credit Hours	**14**
Spring Semester		
KINE 100	Health and Wellness	1
THEA 141	Theatre Appreciation-GTAH1	3
Select one of the following:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communication	
SPCH 102	Speechmaking	
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts, or Humanities course		3
FILM 270	Cinema Capstone II	4
FILM 299	Internship	1
	Semester Credit Hours	**15**
	Total Semester Credit Hours	**61**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's “Intent to Graduate” does not automatically move to a later graduation date.

Digital Filmmaking: Animation Principles I (Technical Certificate)

Overview

Award: Technical Certificate
Program of Study: Digital Filmmaking
Specialization: Animation Principles I
Program Code: 1152

Animation Principles I delves into the art of traditional animation and the animation production process providing students with a solid animation foundation. The curriculum is designed to foster experiential learning and project-based results, equipping students with practical skills. By focusing on foundational and traditional animation techniques, students gain a comprehensive understanding of animation theory and application. This robust foundation serves as a springboard for careers in traditional animation, 3D animation, video game design, social media, and augmented reality design, instilling a sense of readiness and confidence in our students.

Animation Principles I offers students the theory and mechanics of traditional animation. Through principled animation and drawing exercises, students learn kinetic drawing, dynamic gesticulation, solid design, and the 12 principles of animation. This prepares them for fully rendered animation projects. A distinguishing factor of the program is that all animation is conceived digitally, using industry-standard software. This ensures that students are learning with the best tools, giving them a competitive edge in the industry.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Develop foundational communication skills for film production, including listening, verbal, written, and electronic communication, essential for entry-level positions in production companies or freelance work. (Communication Fluency)
2. Develop basic research and application skills relevant to production careers, focusing on gathering and using information effectively. (Critical Thinking, Information Literacy)\
3. Develop fundamental skill sets required for entry-level positions in film and video production, covering basic techniques and procedures. (Specialized Knowledge)
4. Define essential animation and video terminology, symbols, and principles to articulate the industry's basic practices.\ (Specialized Knowledge)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than “C” will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(12 Semester Hours)

Code	Title	Semester Credit Hours
FILM 114	Introduction to Animation I	3
FILM 115	Cinema Design Tools	3
FILM 124	Drawing for Animation	3
FILM 134	Storyboarding	3
Total Semester Credit Hours		**12**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
FILM 114	Introduction to Animation I	3
FILM 115	Cinema Design Tools	3
FILM 124	Drawing for Animation	3
FILM 134	Storyboarding	3
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**12**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Digital Filmmaking: Animation Principles II (Technical Certificate)

Overview

Award: Technical Certificate
Program of Study: Digital Filmmaking
Specialization: Animation Principles II
Program Code: 1154

Animation Principles II delve into the art of traditional animation and the animation production process. The curriculum is designed to foster experiential learning and project-based results, equipping students with practical skills. This robust foundation serves as a springboard for careers in traditional animation, 3D animation, video game design, social media, and augmented reality design, instilling a sense of readiness and confidence in our students.

In this certificate, students will utilize animation, dynamic drawing, and storyboarding training to conceive fully rendered story-driven animations. The process focuses on setting the pace and preparing students for the rigors of animation and, most importantly, the structure and process of animation production. Intermediate animation techniques are explored and utilized in projects to create greater depth of character performance, render stylized backgrounds, and add voice acting and sound design to their productions. At the end of the certificate, the student will have a workable animation piece for their portfolio.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Apply effective communication skills in a professional film production environment, utilizing various forms of communication including listening, verbal, written, and electronic means, essential for career advancement within production companies or as an independent creator. (Communication Fluency)\
2. Develop research, \ skills and apply data in intermediate production scenarios, demonstrating intermediate critical thinking abilities. (Critical Thinking)\
3. Develop specialized skill sets required for intermediate-level positions in film and video production, focusing on refining techniques and expanding creative abilities. (Specialized Knowledge)\
4. Recognize film and video terminology, symbols, business practices, and principles, facilitating more comprehensive engagement within the industry. (Specialized Knowledge, Communication Fluency)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(12 Semester Hours)

Code	Title	Semester Credit Hours
FILM 110	Film Expression	3
FILM 154	Introduction to Animation II	3
FILM 164	Character Animation	3
FILM 211	Short-Form Production II	3
Total Semester Credit Hours		**12**

Suggested Course Plan

First Year		
Spring Semester		**Semester Credit Hours**
FILM 110	Film Expression	3
FILM 154	Introduction to Animation II	3
FILM 164	Character Animation	3
FILM 211	Short-Form Production II	3
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**12**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Digital Filmmaking: Drone Cinematography (Technical Certificate)

Overview

Award: Technical Certificate
Program of Study: Digital Filmmaking
Specialization: Drone Cinematography
Program Code: 1156

Discover the exhilarating realm of Digital Filmmaking Drone Cinematography! The Drone Cinematography Certificate program is designed for individuals seeking to enhance their skills and knowledge in the dynamic field of aerial cinematography. This comprehensive program covers various aspects, including cinematography techniques, short-form production, documentary filmmaking, and freelancing for creative

projects. Participants will gain hands-on experience with industry-standard equipment, receive expert instruction, and develop a versatile skill set applicable to the rapidly evolving world of visual storytelling. The focus of this certificate will be on cinematography, production, and post-production skills and not a substitute for Part 107 training. A CMU Tech Small UAS Certificate or a Part 107 FAA Certificate as a pre-requisite to this program is required.

This cutting-edge program comprehensively explores the intersection between digital filmmaking and drone technology. Aspiring drone pilots and filmmakers will delve into a diverse curriculum, mastering the art of aerial cinematography and storytelling. Throughout the program, students will take courses such as Short Form Production II, Documentary Production, Cinematography, and Freelancing for Creatives. These courses offer a deep dive into aerial cinematography techniques, cinematic principles, and essential business skills for freelancers. Through hands-on projects and expert guidance, students will develop the expertise needed to succeed in this rapidly evolving industry. Upon completion, graduates will be equipped to leverage drone technology creatively, capturing breathtaking visuals from the skies and telling compelling stories through their unique lens. Prepare to embark on a thrilling journey where creativity knows no bounds and the horizon is limitless.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Develop effective communication skills essential for the drone cinematography industry, encompassing listening, verbal, written, and electronic communication methods, crucial for engaging with clients, collaborators, and potential employers.\ (Communication Fluency)\
2. Demonstrate the foundational skills of research and application of information/data pertinent to drone cinematography, facilitating informed decision-making and creative problem-solving in various production contexts. (Critical Thinking)\
3. Demonstrate basic-level skill sets specific to drone cinematography, covering technical aspects, safety protocols, and creative techniques essential for entry-level positions or freelance work in the industry. (Specialized Knowledge)\
4. Recognize fundamental film and video terminology, symbols, business practices, and principles tailored to the production and drone cinematography domain, enabling effective communication and collaboration within the industry. (Specialized Knowledge)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than “C” will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Specific to the program: A CMU Tech Small UAS Certificate or a Part 107 FAA Certificate as a pre-requisite to this program is required.

Program Specific Certificate Requirements

(12 Semester Hours)

Code	Title	Semester Credit Hours
FILM 139	Professional Documentary Production	3
FILM 151	Cinematography	3
FILM 211	Short-Form Production II	3
FILM 260	Freelancing for Creatives	3
Total Semester Credit Hours		**12**

Suggested Course Plan

First Year		
Spring Semester		**Semester Credit Hours**
FILM 139	Professional Documentary Production	3
FILM 151	Cinematography	3
FILM 211	Short-Form Production II	3

FILM 260	Freelancing for Creatives	3
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**12**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Digital Filmmaking: Production Design Elements (Technical Certificate)

Award: Technical Certificate
Program of Study: Digital Filmmaking
Specialization: Production Design Elements
Program Code: 1124

This program is no longer accepting new students.

This Digital Filmmaking: Production Design Elements certificate helps prepare students with foundational skills needed for entry-level careers in the film, TV, and commercial video industries.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Apply business communication using listening, verbal, written, and electronic forms that are needed for entry-level employment. (Communication Fluency)
2. Apply math and applied physics concepts for industry to meet job requirements. (Quantitative Fluency)
3. Research, evaluate, synthesize, and apply information/data relevant to business, the sciences, and technical careers. (Critical Thinking)
4. Demonstrate knowledge of terminology, symbols, business practices, principles, and application of technical skills. (Specialized Knowledge/Applied Learning)
5. Perform the applied skill sets to fulfill the needs of entry-level employment. (Specialized Knowledge/Applied Learning)
6. Demonstrate ethical, civic, and workplace responsibility as part of professional behavior. (Specialized Knowledge/Applied Learning)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and

internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(12 semester hours, 2.00 cumulative GPA or higher in program coursework.)

Code	Title	Semester Credit Hours
FILM 115	Cinema Design Tools	3
FILM 125	Production Drawing & Design	3
FILM 135	Cinema Editing Aesthetics	3
FILM 145	Commercial & Corporate Video Editing	3
Total Semester Credit Hours		**12**

Suggested Course Plan

First Year Fall Semester		Semester Credit Hours
FILM 115	Cinema Design Tools	3
FILM 125	Production Drawing & Design	3
FILM 135	Cinema Editing Aesthetics	3
FILM 145	Commercial & Corporate Video Editing	3
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**12**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Digital Filmmaking: Basic Production Design (Technical Certificate)

Award: Technical Certificate
Program of Study: Digital Filmmaking
Specialization: Basic Production Design
Program Code: 1125

This program is no longer accepting new students.

This Digital Filmmaking: Basic Production Design certificate helps prepare students with basic production skills needed for entry-level careers in the film, TV, and commercial video industries.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Apply business communication using listening, verbal, written, and electronic forms that are needed for entry-level employment. (Communication Fluency)
2. Apply math and applied physics concepts for industry to meet job requirements. (Quantitative Fluency)
3. Research, evaluate, synthesize, and apply information/data relevant to business, the sciences, and technical careers. (Critical Thinking)
4. Demonstrate knowledge of terminology, symbols, business practices, principles, and application of technical skills. (Specialized Knowledge/Applied Learning)
5. Perform the applied skill sets to fulfill the needs of entry-level employment. (Specialized Knowledge/Applied Learning)

6. Demonstrate ethical, civic, and workplace responsibility as part of professional behavior. (Specialized Knowledge/Applied Learning)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than “C” will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(12 semester hours, 2.00 cumulative GPA or higher in program coursework.)

Code	Title	Semester Credit Hours
FILM 155	Commercial Audio Design	3
FILM 160	Cinema Previsualization	3
FILM 165	Cinema Production Design	3
FILM 175	Short-Form Video Editing	3
Total Semester Credit Hours		**12**

Suggested Course Plan

First Year

Spring Semester		**Semester Credit Hours**
FILM 155	Commercial Audio Design	3
FILM 160	Cinema Previsualization	3
FILM 165	Cinema Production Design	3
FILM 175	Short-Form Video Editing	3
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**12**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student’s responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar’s Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar’s Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the “Intent to Graduate” form to the Registrar’s Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's “Intent to Graduate” does not automatically move to a later graduation date.

Digital Filmmaking: Intermediate Production Design (Technical Certificate)

Award: Technical Certificate
Program of Study: Digital Filmmaking
Specialization: Intermediate Production Design
Program Code: 1126

This program is no longer accepting new students.

This Digital Filmmaking: Intermediate Production Design certificate helps prepare students with the intermediate skills needed for entry-level careers in the film, TV, and commercial video industries.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Apply business communication using listening, verbal, written, and electronic forms that are needed for entry-level employment. (Communication Fluency)
2. Apply math and applied physics concepts for industry to meet job requirements. (Quantitative Fluency)
3. Research, evaluate, synthesize, and apply information/data relevant to business, the sciences, and technical careers. (Critical Thinking)
4. Demonstrate knowledge of terminology, symbols, business practices, principles, and application of technical skills. (Specialized Knowledge/Applied Learning)
5. Perform the applied skill sets to fulfill the needs of entry-level employment. (Specialized Knowledge/Applied Learning)
6. Demonstrate ethical, civic, and workplace responsibility as part of professional behavior. (Specialized Knowledge/Applied Learning)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(9 semester hours, 2.00 cumulative GPA or higher in program coursework.)

Code	Title	Semester Credit Hours
FILM 220	Cinema Audio Design	3
FILM 240	Digital Cinematic Effects	3
FILM 250	Episodic Video Editing	3
Total Semester Credit Hours		**9**

Suggested Course Plan

Second Year		
Fall Semester		
		Semester Credit Hours
FILM 220	Cinema Audio Design	3
FILM 240	Digital Cinematic Effects	3
FILM 250	Episodic Video Editing	3
	Semester Credit Hours	**9**
	Total Semester Credit Hours	**9**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the

student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Digital Filmmaking: Writing/Directing Elements (Technical Certificate)

Award: Technical Certificate
Program of Study: Digital Filmmaking
Specialization: Writing/Directing Elements
Program Code: 1146

This program is no longer accepting new students.

This Digital Filmmaking: Writing/Directing Elements certificate helps prepare students with the foundational skills needed for entry-level careers in the film, TV, and documentary video industries.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Recognize the required skill sets to fulfill entry-level employment needs in the film and video production industries. \ (Specialized Knowledge)\
2. Describe the physics of light, sound, and electricity to meet the film industry's technical job requirements.\ (Quantitative Fluency)\
3. Use elemental listening, verbal, written, and electronic forms of communications needed for entry-level employment with a production company or as a freelance creator.\ (Communications Fluency)\
4. Explore information relevant to above- or below-the-line production careers.\ (Critical Thinking)\

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(12 semester hours, 2.00 cumulative GPA or higher in program coursework.)

Code	Title	Semester Credit Hours
FILM 110	Film Expression	3
FILM 120	Film Script Analysis	3
FILM 130	Short-Form Screenwriting	3
FILM 139	Professional Documentary Production	3
Total Semester Credit Hours		**12**

Suggested Course Plan

First Year

Fall Semester		Semester Credit Hours
FILM 110	Film Expression	3
FILM 120	Film Script Analysis	3
FILM 130	Short-Form Screenwriting	3
FILM 139	Professional Documentary Production	3
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**12**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Digital Filmmaking: Basic Writing/ Directing (Technical Certificate)

Award: Technical Certificate
Program of Study: Digital Filmmaking
Specialization: Basic Writing/Directing
Program Code: 1147

This program is no longer accepting new students.

This Digital Filmmaking: Basic Writing/Directing certificate helps prepare students with the basic skills needed for entry-level careers in the film, TV, and commercial video industries.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Apply basic business communication skills using listening, verbal, written, and electronic forms needed for entry-level employment with a production company or as a freelance creator.\ (Communication Fluency)\
2. Research, evaluate, synthesize, and apply information/data at a basic level relevant to above- or below-the-line production careers. (Critical Thinking)\
3. Perform basic-level skill sets to fulfill entry-level employment needs in the film and video production industries. (Specialized Knowledge)\
4. Define basic film and video terminology, symbols, business practices, and principles.\ (Information Literacy)\

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.

- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(12 semester hours, 2.00 cumulative GPA or higher in program coursework.)

Code	Title	Semester Credit Hours
FILM 144	Sound Design for Film	3
FILM 150	Episodic Screenwriting	3
FILM 170	Short-Form Production	3
FILM 209	Production Budget and Scheduling	3
Total Semester Credit Hours		**12**

Suggested Course Plan

First Year

Spring Semester		Semester Credit Hours
FILM 144	Sound Design for Film	3
FILM 150	Episodic Screenwriting	3
FILM 170	Short-Form Production	3
FILM 209	Production Budget and Scheduling	3
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**12**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Digital Filmmaking: Intermediate Writing/Directing (Technical Certificate)

Award: Technical Certificate
Program of Study: Digital Filmmaking
Specialization: Intermediate Writing/Directing
Program Code: 1148

This program is no longer accepting new students.

This Digital Filmmaking: Intermediate Writing/Directing certificate helps prepare students with the intermediate skills needed for entry-level careers in the film, TV, and commercial video industries.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Apply intermediate level business communication skills using listening, verbal, written, and electronic forms needed for entry-level employment with a production company or as a freelance creator. (Communication Fluency)\

2. Research, evaluate, synthesize, and apply information/data at an intermediate level relevant to above- or below-the-line production careers. (Critical Thinking)\
3. Perform intermediate level required skill sets to fulfill entry-level employment needs in the film and video production industries. (Specialized Knowledge)\
4. Demonstrate ethical, civic, and workplace responsibility as part of professional behavior for the film and video production industry. (Specialized Knowledge)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than “C” will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(6 semester hours, 2.00 cumulative GPA or higher in program coursework.)

Code	Title	Semester Credit Hours
FILM 230	Episodic Production	3
FILM 265	Producing Indie Films	3
Total Semester Credit Hours		**6**

Suggested Course Plan

Second Year		
Fall Semester		**Semester Credit Hours**
FILM 230	Episodic Production	3
FILM 265	Producing Indie Films	3
	Semester Credit Hours	**6**
	Total Semester Credit Hours	**6**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student’s responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar’s Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar’s Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the “Intent to Graduate” form to the Registrar’s Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Digital Filmmaking: Writing/Directing Principles I (Technical Certificate)

Overview

Award: Technical Certificate
Program of Study: Digital Filmmaking
Specialization: Writing/Directing Principles I
Program Code: 1208

This Digital Filmmaking: Writing/Directing Principles I certificate helps prepare students with the foundational skills needed for entry-level careers in the film, television, and documentary video industries.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Recognize the required skill sets to fulfill entry-level employment needs in the film and video production industries. \ (Specialized Knowledge)\
2. Describe the physics of light, sound, and electricity to meet the film industry's technical job requirements.\ (Quantitative Fluency)\
3. Use elemental listening, verbal, written, and electronic forms of communications needed for entry-level employment with a production company or as a freelance creator.\ (Communications Fluency)\
4. Explore information relevant to above- or below-the-line production careers.\ (Critical Thinking)\

Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(12 semester hours, 2.00 cumulative GPA or higher in program coursework.)

Code	Title	Semester Credit Hours
FILM 115	Cinema Design Tools	3
FILM 130	Short-Form Screenwriting	3
FILM 135	Cinema Editing Aesthetics	3
FILM 170	Short-Form Production	3
Total Semester Credit Hours		**12**

Suggested Course Plan

First Year

Fall Semester		**Semester Credit Hours**
FILM 115	Cinema Design Tools	3
FILM 130	Short-Form Screenwriting	3
FILM 135	Cinema Editing Aesthetics	3
FILM 170	Short-Form Production	3
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**12**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Digital Filmmaking: Writing/Directing Principles II (Technical Certificate)

Overview

Award: Technical Certificate
Program of Study: Digital Filmmaking
Specialization: Writing/Directing Principles II
Program Code: 1209

This Digital Filmmaking: Writing/Directing Principles II certificate helps prepare students with the basic skills needed for entry-level careers in the film, television, and commercial video industries.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Apply basic business communication skills using listening, verbal, written, and electronic forms needed for entry-level employment with a production company or as a freelance creator.\ (Communication Fluency)\
2. Research, evaluate, synthesize, and apply information/data at a basic level relevant to above- or below-the-line production careers. (Critical Thinking)\
3. Perform basic-level skill sets to fulfill entry-level employment needs in the film and video production industries. (Specialized Knowledge)\
4. Define basic film and video terminology, symbols, business practices, and principles.\ (Information Literacy)\

Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirments

(12 semester hours, 2.00 cumulative GPA or higher in program coursework.)

Code	Title	Semester Credit Hours
FILM 110	Film Expression	3
FILM 139	Professional Documentary Production	3
FILM 151	Cinematography	3
FILM 211	Short-Form Production II	3
Total Semester Credit Hours		**12**

Suggested Course Plan

First Year Spring Semester		Semester Credit Hours
FILM 110	Film Expression	3
FILM 139	Professional Documentary Production	3
FILM 151	Cinematography	3
FILM 211	Short-Form Production II	3
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**12**

Advising and Graduation
Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Digital Filmmaking: Writing/Directing Principles III (Technical Certificate)

Overview

Award: Technical Certificate
Program of Study: Digital Filmmaking
Specialization: Writing/Directing Principles III
Program Code: 1210

This Digital Filmmaking: Writing/Directing Principles III certificate helps prepare students with the intermediate skills needed for entry-level careers in the film, television, and commercial video industries.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning,

communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Apply intermediate level business communication skills using listening, verbal, written, and electronic forms needed for entry-level employment with a production company or as a freelance creator. (Communication Fluency)\
2. Research, evaluate, synthesize, and apply information/data at an intermediate level relevant to above- or below-the-line production careers. (Critical Thinking)\
3. Perform intermediate level required skill sets to fulfill entry-level employment needs in the film and video production industries. (Specialized Knowledge)\
4. Demonstrate ethical, civic, and workplace responsibility as part of professional behavior for the film and video production industry. (Specialized Knowledge)

Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(7 semester hours, 2.00 cumulative GPA or higher in program coursework.)

Code	Title	Semester Credit Hours
FILM 144	Sound Design for Film	3
FILM 200	Directing Film Actors	1
FILM 264	Multimedia and Special Effects	3
Total Semester Credit Hours		**7**

Suggested Course Plan

Second Year		
Fall Semester		**Semester Credit Hours**
FILM 144	Sound Design for Film	3
FILM 200	Directing Film Actors	1
FILM 264	Multimedia and Special Effects	3
	Semester Credit Hours	**7**
	Total Semester Credit Hours	**7**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students

are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Education: Early Childhood

Program Description

Bachelor of Arts

The Early Childhood/Early Childhood Special Education program provides teacher education candidates with a broad content knowledge and prepares them as teachers for early childhood including preschool through second/third grade (birth to age 8) in an inclusive setting. Graduates from the bachelor's program are qualified to receive a Colorado Initial Teaching License in Early Childhood (EC-Age 8) and an endorsement in Early Childhood Special Education (EC-Age 8). Students gradually accumulate over 200 hours of classroom experience before beginning student teaching. Student teaching will be completed the final semester and is at least 600 field hours. School districts throughout western Colorado provide opportunities to gain experience with children of all ages and backgrounds in a variety of school settings. A minimum of 60 credit hours of essential learning and foundation coursework must be completed with a minimum GPA of 2.80 before a candidate may apply for admission to the Center for Teacher Education program. Please see the Teacher Education Admission Packet for further information on admissions criteria.

The Early Childhood Education, Inclusive Non-Licensure program provides teacher education candidates with broad content knowledge and prepares them as teachers for early childhood including children ages birth through Pre-Kindergarten in an inclusive setting. A minimum of 67 credit hours of essential learning and foundation coursework must be completed with a minimum GPA of 2.50 before a candidate may apply for admission to the Center for Teacher Education program. Please see the Teacher Education Admission Packet for further information on admissions criteria.

Associate of Arts

The early childhood certificate program prepares students for careers in licensed early childhood care and education programs and enables students to meet the educational qualifications of the Colorado Department of Human Services. Students who wish to work in licensed early childhood classrooms may complete the director or teacher sequence and then continue on to earn an Associate of Arts in Early Childhood Education. Career options include opportunities in childcare centers and preschools.

The Associate of Arts (AA) with an early childhood education emphasis provides students with a foundation for working with children from birth to age eight in a variety of settings. Our faculty offer one-on-one guidance for course selection, field placements, student teaching and employment. With an increasing focus on quality early education, many organizations are requiring their employees to demonstrate a level of expertise provided by the AA degree. Our students complete their degree with a culminating student teaching experience, giving them an opportunity to teach in a preschool classroom for a semester. Graduates of the early childhood program are employed in large and small child care centers, operate their own home care centers, work in other school settings, or use coursework as a foundation to continue into elementary education. In addition, the program aligns with state requirements for early childhood teacher certification and large center director qualification.

Special Requirements

Study directed toward the Associate of Arts degree may serve as a basis for the Bachelor of Arts degree with elementary education licensure. Programs of study are sequential and advanced planning is necessary for an efficient transition from an associate program to a baccalaureate program. Faculty advisors assist students in planning programs to meet requirements. Students seeking childcare center director qualification should meet with an advisor in order to meet specific certification requirements.

Contact Information

CMU Tech
Office of Student Services, Kayenta Hall 102
2508 Blichmann Avenue
970.255.2670

--or--

Center for Teacher Education
Dominguez Hall 109L
970.248.1786

Programs of Study

Associates

- Education: Early Childhood Education (AAS) (p. 354)
- Education: Early Childhood Education with Prior CDA /EQIT Certifications (AAS) (p. 356)
- Education: Early Childhood Education, Liberal Arts (AA) (p. 351)

Bachelors/Minors

- Education: Early Childhood Education, Inclusive Non-Licensure (BA) (p. 348)

- Education: Early Childhood Special Education, Early Childhood Education (BA) (p. 345)

Certificates

- Education: Early Childhood Education Assistant Teacher (Technical Certificate) (p. 358)
- Education: Early Childhood Education Director (Technical Certificate) (p. 359)
- Education: Early Childhood Education Director with CDA Infant Toddler (Technical Certificate) (p. 361)
- Education: Early Childhood Education Director with CDA Preschool & EQIT (Technical Certificate) (p. 364)
- Education: Early Childhood Education Director with CDA Preschool (Technical Certificate) (p. 362)
- Education: Early Childhood Education Entry-Level Teacher (Technical Certificate) (p. 366)
- Education: Early Childhood Education Teacher (Technical Certificate) (p. 367)
- Education: Early Childhood Education Teacher with CDA Infant Toddler (Technical Certificate) (p. 369)
- Education: Early Childhood Education Teacher with CDA Preschool or EQIT (Technical Certificate) (p. 371)

Education: Early Childhood Special Education, Early Childhood Education (BA)

Degree: Bachelor of Arts
Major: Early Childhood Education
Concentration: Early Childhood Special Education
Program Code: 3204

The Center for Teacher Education offers a comprehensive program of study that leads to licensure in Colorado. Our professors are experienced, knowledgeable, accessible, and dedicated to the improvement of public education. At Colorado Mesa, we pride ourselves on the personal touch. Faculty offer one-on-one guidance for course selection, field placements, student teaching and employment. Our mission is to develop *Educators as Innovators*; we are always looking to improve the quality of learning in our programs, early childhood programs, and K-12 schools.

As a student, you will gradually accumulate over 200 hours of classroom experience before beginning student teaching. School districts throughout western Colorado provide opportunities to gain experience with children of all ages and backgrounds in a variety of school settings.

The Early Childhood Special Education program provides teacher education candidates with broad content knowledge and prepares them as teachers for early childhood including birth through second/third grade (birth to age 8) in an inclusive setting. A minimum of 70 credit hours of essential learning and foundation coursework must be completed with a minimum GPA of 2.80 before a candidate may apply for admission to the Center for Teacher Education program. Please see the Teacher Education Admission Packet for further information on admissions criteria.

Important information about this program:

- 122 semester hours total for the BA in Early Childhood Education, Early Childhood Special Education.
- 2.80 cumulative GPA or higher in all CMU coursework.
- 2.80 cumulative GPA or higher in coursework toward the major content area.
- All ECSE/EDUC prefix courses must be completed with a grade of B or better.
- Students must pass the PRAXIS II exam in the content area prior to beginning the internship. Also, all other coursework toward the degree must be successfully completed prior to the internship.
- A grade of C or better must be earned in all required courses, unless otherwise stated.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Demonstrate mastery of major area's content knowledge and pedagogical strategies through fieldwork with learners in professional settings. (Specialized Knowledge/Applied Learning)
2. Design and establish a safe, inclusive, and respectful learning environment for a diverse population of students. (Specialized Knowledge/Applied Learning)
3. Plan and deliver effective instruction to students, based on research-based pedagogical practices. (Communication Literacy/Information Literacy)
4. Collect and critically analyze student assessment data and use results to inform planning and instruction. (Critical Thinking/Quantitative Fluency)
5. Demonstrate professionalism through ethical conduct, reflection, and leadership. (Personal and Social Responsibility)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.

- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this degree:

- 122 semester hours required for the BA in Early Childhood Education: Early Childhood Special Education degree.

Essential Learning Requirements

(31 semester hours, must earn a grade of "C" or better in each course, unless otherwise noted.)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1,2]		
MATH 205	Elements of Mathematics II-GTMA1	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
PSYC 150	General Psychology-GTSS3 [3]	3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [4]		
Select one Natural Sciences course with a lab		4
Select one Natural Sciences course		3
Total Semester Credit Hours		**31**

1. Must receive a grade of "B" or better and must be completed by the time the student has 60 semester hours.
2. Must be taken after MATH 105
3. Must earn a "B" or higher.
4. One course must include a lab.

Other Lower Division Requirements

Must earn a grade of "C" or better in each course, unless otherwise noted.

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

1. Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(30 semester hours, must earn a grade of "C" or better in each course, unless otherwise noted.)

Code	Title	Semester Credit Hours
EDEC 101	Introduction to Early Childhood	3
EDEC 103	Guidance Strategies	3
MATH 105	Elements of Mathematics I	3
EDEC 113	Infant and Toddler Theory and Practice	3
EDEC 122	Ethics in Early Childhood Education	1
EDEC 205	Nutrition, Health, Safety	3
EDEC 238	Early Childhood Development 0-8 Years	3
EDEC 240	Curriculum and Development: Early Childhood	3
EDEC 241	Early Childhood Administration: Human Relations	3
EDEC 250	Exceptionalities in Early Education	3
EDEC 290	Early Literacy for the Young Child	2
Total Semester Credit Hours		**30**

Program Specific Degree Requirements

(55 semester hours, must earn a grade of "B" or better in each course, unless otherwise stated, and maintain a 2.80 cumulative GPA or higher in coursework in this area.)

- Students must pass the PRAXIS II exam in the content area prior to beginning the internship. Also, all other coursework toward the degree must be successfully completed prior to the internship.

Code	Title	Semester Credit Hours
Core Courses [1]		
EDEC 256	Working with Parents, Families, and Community Systems	3
EDUC 311	Creative and Physical Expressions for Children	3
EDUC 340	Pedagogical and Assessment Knowledge for Teachers: Early Childhood, Birth - 8 years (20 field experience hours)	3
EDUC 343	Teaching to Diversity (20 field experience hours)	3
EDUC 374	Exceptional and English Language Learners in the Inclusive Classroom	3
EDUC 378	Technology for K-12 Educators	1
EDUC 301	Emergent Literacy for Early Childhood (20 field experience hours)	3
ECSE 320	Learner Development and Individual Differences	3
ECSE 435	Assessment and Evaluation of the Young Child, Birth-8 Years (20 field experience hours)	3
ECSE 430	Instructional Strategies for Inclusion and Intervention, Birth-8 Years (20 field experience hours)	3
EDUC 440	Methods of Teaching Language and Literacy: EC (40 field experience hours)	3
EDUC 441	Methods of Teaching Language and Literacy: Elementary (80 field experience hours)	3
EDUC 451	Methods of Teaching Mathematics: Early Childhood/Elementary (60 field experience hours)	3
EDUC 461	Methods of Teaching Science and Social Studies: Early Childhood/Elementary	3
ECSE 450	Individual Behavior Support and Guidance with Young Learners	3
EDUC 499A	Teaching Internship and Colloquia: K-2 (300 field experience hours)	12
Praxis II Exam Passed		
Total Semester Credit Hours		**55**

[1] Course enrollment includes 800 field experience hours.

All ECSE/EDUC prefix courses listed above must be completed with a grade of B or better to progress through the program sequence. Students must PASS the PRAXIS II exam in the content area prior to commencing the internship. Also, ALL other coursework toward the degree must be successfully completed prior to the internship.

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
PSYC 150	General Psychology-GTSS3	3
Essential Learning - History		3
EDEC 101	Introduction to Early Childhood	3
EDEC 103	Guidance Strategies	3
KINE 100	Health and Wellness	1
	Semester Credit Hours	**16**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
Essential Learning - Fine Arts		3
Essential Learning - Social/Behavioral Science		3
EDEC 122	Ethics in Early Childhood Education	1
EDEC 238	Early Childhood Development 0-8 Years	3
Essential Learning - Natural Science		3
	Semester Credit Hours	**16**
Second Year		
Fall Semester		
Essential Learning - Natural Science with Lab		4
MATH 105	Elements of Mathematics I	3
EDEC 205	Nutrition, Health, Safety	3
EDEC 240	Curriculum and Development: Early Childhood	3
EDEC 241	Early Childhood Administration: Human Relations	3
KINA Activity		1
	Semester Credit Hours	**17**
Spring Semester		
MATH 205	Elements of Mathematics II-GTMA1	3
Essential Learning - Humanities		3
EDEC 113	Infant and Toddler Theory and Practice	3
EDEC 250	Exceptionalities in Early Education	3
EDEC 290	Early Literacy for the Young Child	2
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
	Semester Credit Hours	**18**
Third Year		
Fall Semester		
EDUC 340	Pedagogical and Assessment Knowledge for Teachers: Early Childhood, Birth - 8 years	3
EDUC 343	Teaching to Diversity	3
EDUC 374	Exceptional and English Language Learners in the Inclusive Classroom	3
EDEC 256	Working with Parents, Families, and Community Systems	3
ECSE 320	Learner Development and Individual Differences	3
	Semester Credit Hours	**15**
Spring Semester		
EDUC 311	Creative and Physical Expressions for Children	3
EDUC 301	Emergent Literacy for Early Childhood	3
ECSE 435	Assessment and Evaluation of the Young Child, Birth-8 Years	3
ECSE 430	Instructional Strategies for Inclusion and Intervention, Birth-8 Years	3
EDUC 440	Methods of Teaching Language and Literacy: EC	3
	Semester Credit Hours	**15**
Fourth Year		
Fall Semester		
EDUC 378	Technology for K-12 Educators	1
EDUC 451	Methods of Teaching Mathematics: Early Childhood/ Elementary	3
EDUC 441	Methods of Teaching Language and Literacy: Elementary	3
EDUC 461	Methods of Teaching Science and Social Studies: Early Childhood/Elementary	3
ECSE 450	Individual Behavior Support and Guidance with Young Learners	3
	Semester Credit Hours	**13**
Spring Semester		
EDUC 499A	Teaching Internship and Colloquia: K-2	12
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**122**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Education: Early Childhood Education, Inclusive Non-Licensure (BA)

Degree: Bachelor of Arts
Major: Early Childhood Education, Inclusive Non-Licensure
Program Code: 3206

The Center for Teacher Education offers a comprehensive program of study that leads to the preparation of Early Childhood Educators who will teach in diverse, inclusive early childhood classrooms. Our professors are experienced, knowledgeable, accessible, and dedicated to the improvement of public education. At Colorado Mesa, we pride ourselves on the personal touch. Faculty offer one-on-one guidance for course selection, field placements, student teaching and employment. Our mission is to develop *Educators as Innovators*; we are always looking to improve the quality of learning in our programs and in early childhood programs in the community.

As a student, you will accumulate a wealth of classroom experience. School districts and early childhood care programs throughout western Colorado provide opportunities to gain experience with young children from all backgrounds in a variety of program settings.

The Early Childhood Education, Inclusive Non-Licensure program provides teacher education candidates with broad content knowledge and prepares them as teachers for early childhood including children ages birth through PreKindergarten in an inclusive setting. A minimum of 67 credit hours of essential learning and foundation coursework must be completed with a minimum GPA of 2.50 before a candidate may apply for admission to the Center for Teacher Education program. Please see the Teacher Education Admission Packet for further information on admissions criteria.

Important information about this program:

- 121 semester hours total for the BA in Early Childhood Education, Inclusive Non-Licensure.
- 2.50 cumulative GPA or higher in all CMU coursework.
- 2.50 cumulative GPA or higher in coursework toward the major content area.
- Must earn a grade of "C" or better in all Essential Learning, Lower Division, and Foundation coursework.
- All ECSE/EDUC prefix courses must be completed with a grade of B or better.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Demonstrate mastery of major area's content knowledge and pedagogical strategies through fieldwork with young learners in diverse, inclusive settings. (Specialized Knowledge/Applied Learning)
2. Design and establish a safe, engaging, inclusive, and respectful early childhood learning environment for a diverse population of young students. (Specialized Knowledge/Applied Learning)
3. Plan and deliver effective instruction to young students, based on high-leverage, research-based pedagogical practices. (Communication Literacy/Information Literacy)
4. Collect and critically analyze young student assessment data and use results to inform planning and instruction. (Critical Thinking/Quantitative Fluency)
5. Demonstrate professionalism through ethical conduct, reflection, and leadership in early childhood settings. (Personal and Social Responsibility)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or

"Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Specific to this program:

- 121 semester hours total for the BA in Early Childhood Education, Inclusive Non-Licensure.
- 2.50 cumulative GPA or higher in all CMU coursework.
- 2.50 cumulative GPA or higher in coursework toward the major content area.
- Must earn a grade of "C" or better in all Essential Learning, Lower Division, and Foundation coursework.
- All ECSE/EDUC prefix courses must be completed with a grade of B or better.

Essential Learning Requirements

31 semester hours

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Must earn a grade of "C" or better in all Essential Learning courses.

Code	Title	Semester Credit Hours
English		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics		
MATH 110	Mathematical Investigations-GTMA1 (or higher)	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences [1]		
PSYC 150	General Psychology-GTSS3	3
Select one additional Social and Behavioral Sciences course [1]		
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [2]		
Select one Natural Sciences course with a lab		4
Select one Natural Sciences course		3
Total Semester Credit Hours		**28**

[1] PSYC 233 highly suggested
[2] One course must include a lab.

Other Lower Division Requirements

(Must earn a grade of "C" or better in all Lower Division courses.)

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(27 semester hours. Must earn a grade of "C" or better in all Foundation courses.)

Code	Title	Semester Credit Hours
EDEC 101	Introduction to Early Childhood	3
EDEC 103	Guidance Strategies	3
EDEC 113	Infant and Toddler Theory and Practice	3
EDEC 122	Ethics in Early Childhood Education	1

EDEC 125	Science/Math and the Young Child	3
EDEC 205	Nutrition, Health, Safety	3
EDEC 238	Early Childhood Development 0-8 Years	3
EDEC 240	Curriculum and Development: Early Childhood	3
EDEC 241	Early Childhood Administration: Human Relations	3
EDEC 290	Early Literacy for the Young Child	2
Total Semester Credit Hours		**27**

Program Specific Degree Requirements

(57 semester hours, must maintain a 2.50 cumulative GPA or higher in coursework in this area.)

After successful completion of Essential Learning Courses, Lower Division Courses, and Foundation Courses, student must apply for admission to the Center for Teacher Education in order to take Program-Specific Courses.

Must earn a grade of "B" or better in all EDUC/ECSE courses.

Code	Title	Semester Credit Hours
Core Courses		
EDEC 250	Exceptionalities in Early Education	3
EDEC 256	Working with Parents, Families, and Community Systems	3
EDUC 301	Emergent Literacy for Early Childhood (20 field experience hours)	3
EDUC 311	Creative and Physical Expressions for Children	3
EDUC 340	Pedagogical and Assessment Knowledge for Teachers: Early Childhood, Birth - 8 years (20 field experience hours)	3
EDUC 343	Teaching to Diversity (20 field experience hours)	3
EDUC 374	Exceptional and English Language Learners in the Inclusive Classroom	3
EDUC 461	Methods of Teaching Science and Social Studies: Early Childhood/Elementary	3
ECSE 320	Learner Development and Individual Differences	3
ECSE 430	Instructional Strategies for Inclusion and Intervention, Birth-8 Years (20 field experience hours)	3
ECSE 435	Assessment and Evaluation of the Young Child, Birth-8 Years (20 field experience hours)	3
ECSE 450	Individual Behavior Support and Guidance with Young Learners	3
Senior Capstone – Must take twice		
ECSE 493	Senior Capstone	3
ECSE 493	Senior Capstone	3
Upper-Division Restricted Electives		
Choose five of the following:		15
ENGL 343	Language Systems and Linguistic Diversity	
ENGL 451	Understanding and Using English Grammar	
KINE 321	Physical Activity and Health in the Classroom	
KINE 480	Inclusive Physical Activity	
PSYC 310	Child Psychology	
PSYC 314	Psychology of Learning	
PSYC 340	Abnormal Psychology	
SOWK 301	Child Welfare	
Total Semester Credit Hours		**57**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
EDEC 101	Introduction to Early Childhood	3
EDEC 103	Guidance Strategies	3
ENGL 111	English Composition I-GTCO1	3
KINE 100	Health and Wellness	1
PSYC 150	General Psychology-GTSS3	3
Essential Learning - History		3
	Semester Credit Hours	**16**
Spring Semester		
EDEC 122	Ethics in Early Childhood Education	1
EDEC 238	Early Childhood Development 0-8 Years	3
ENGL 112	English Composition II-GTCO2	3
PSYC 233	Human Growth and Development-GTSS3	3
Essential Learning - Fine Arts		3
Essential Learning - Natural Science		3
	Semester Credit Hours	**16**
Second Year		
Fall Semester		
EDEC 125	Science/Math and the Young Child	3
EDEC 205	Nutrition, Health, Safety	3
EDEC 240	Curriculum and Development: Early Childhood	3
EDEC 241	Early Childhood Administration: Human Relations	3
Essential Learning - Natural Science with Lab		4
KINA Activity		1
	Semester Credit Hours	**17**
Spring Semester		
EDEC 113	Infant and Toddler Theory and Practice	3
EDEC 290	Early Literacy for the Young Child	2
ESSL 200	Essential Speech	1
ESSL 290	Maverick Milestone	3
MATH 110	Mathematical Investigations-GTMA1	3
Essential Learning - Humanities		3
	Semester Credit Hours	**15**
Third Year		
Fall Semester		
ECSE 320	Learner Development and Individual Differences	3
EDEC 256	Working with Parents, Families, and Community Systems	3
EDUC 340	Pedagogical and Assessment Knowledge for Teachers: Early Childhood, Birth - 8 years	3
EDUC 343	Teaching to Diversity	3
EDUC 374	Exceptional and English Language Learners in the Inclusive Classroom	3
	Semester Credit Hours	**15**
Spring Semester		
ECSE 430	Instructional Strategies for Inclusion and Intervention, Birth-8 Years	3
EDEC 250	Exceptionalities in Early Education	3
EDUC 301	Emergent Literacy for Early Childhood	3
EDUC 311	Creative and Physical Expressions for Children	3
Upper-Division Restricted Elective		3
	Semester Credit Hours	**15**

Fourth Year		
Fall Semester		
ECSE 450	Individual Behavior Support and Guidance with Young Learners	3
ECSE 493	Senior Capstone (I)	3
EDUC 461	Methods of Teaching Science and Social Studies: Early Childhood/Elementary	3
Upper-Division Restricted Elective		3
Upper-Division Restricted Elective		3
	Semester Credit Hours	**15**
Spring Semester		
ECSE 435	Assessment and Evaluation of the Young Child, Birth-8 Years	3
ECSE 493	Senior Capstone (II)	3
Upper-Division Restricted Elective		3
Upper-Division Restricted Elective		3
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**121**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Education: Early Childhood Education, Liberal Arts (AA)

Degree: Associate of Arts
Major: Liberal Arts
Emphasis: Early Childhood Education
Program Code: 2263

This degree is designed for students who intend to continue their education and obtain a baccalaureate degree. The A.A. is the appropriate choice for students, who will take upper division coursework in the arts, humanities, or social and behavioral sciences. The degree program includes the Colorado Statewide General Education Core and meets the lower division general education requirements at most public institutions in Colorado.

The Early Childhood Education Program provides students with a foundation for working with children from birth to age eight in a variety of settings. Our faculty offer one-on-one guidance for course selection, field placements, student teaching and employment.

With an increasing focus on quality early education, many organizations are requiring their employees to demonstrate a level of expertise provided by this AA degree. Our students complete their degree with a culminating student teaching experience giving them an opportunity to teach in a working classroom in the community for a semester.

Graduates of the early childhood program go on to be employed in large and small child care centers, open up their own home care centers, work in public school settings, or use coursework as a foundation to continue into Early Childhood or elementary teacher license education. In addition, our program aligns with state requirements for early childhood teacher certification and large center director qualification.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Apply the National Association for the Education of Young Children principles and practices in interactions with young children, families and other professionals. (Applied Learning)
2. Utilize mathematical skills required to instruct young children. (Quantitative Fluency)
3. Demonstrate effective written communication skills. (Communication Fluency)
4. Demonstrate effective verbal communication skills. (Communication Fluency)
5. Analyze interactions and teaching experiences from personal journals/administrative evaluations to improve teaching practices. (Critical Thinking/ Specialized Knowledge)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU or CMU Tech Associate of Arts (AA) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours total.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade of "C" or higher must be earned in all Essential Learning courses in order to be accepted for transfer under the Colorado Core Transfer Consortium General Education curriculum or gtPathways, Colorado's guaranteed transfer program.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 15 semester credit hours for an AA degree. A maximum of 6 of the 15 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this program:

- Students must have current First Aid/CPR cards.
- Student must create a portfolio following department requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

A grade of "C" or higher must be earned in all Essential Learning courses in order to be accepted for the transfer under the Core Transfer Agreements.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [2]		
MATH 110	Mathematical Investigations-GTMA1 (or higher)	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [3]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

1 Must receive a grade of "B" or better and must be completed by the time the student has 60 semester hours.
2 Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.
3 One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Total Semester Credit Hours		**2**

Program Specific Degree Requirements

(27 semester hours, must maintain a 2.50 cumulative GPA or higher in all coursework in the major content area.)

- Students must have current First Aid/CPR cards.
- Student must create a portfolio following department requirements.

Code	Title	Semester Credit Hours
Core Courses		
EDEC 238	Early Childhood Development 0-8 Years [1]	3
or PSYC 233	Human Growth and Development-GTSS3	
EDEC 101	Introduction to Early Childhood	3
EDEC 113	Infant and Toddler Theory and Practice	3
EDEC 122	Ethics in Early Childhood Education	1
EDEC 240	Curriculum and Development: Early Childhood	3

EDEC 250	Exceptionalities in Early Education	3
EDEC 299	Student Teaching in Early Education	3
Total Semester Credit Hours		**19**

[1] For students who do not wish to pursue Director Qualification, PSYC 233 can be taken to fulfill the core requirement.

Code	Title	Semester Credit Hours
Restricted Electives		
Select eight semester hours of the following:		8
EDEC 102	Introduction to Early Childhood Professions Lab Experiences	
EDEC 103	Guidance Strategies	
EDEC 114	Introduction to Infant/Toddler Lab Techniques	
EDEC 196	Topics	
EDEC 200	Observation and Assessment in Early Childhood Education	
EDEC 201	Observation and Assessment in Early Childhood Techniques	
EDEC 205	Nutrition, Health, Safety	
EDEC 230	Curriculum and Development: Infant/Toddler	
EDEC 237	Theories and Techniques of Social and Emotional Growth	
EDEC 241	Early Childhood Administration: Human Relations	
EDEC 256	Working with Parents, Families, and Community Systems	
EDEC 264	Administration in Early Education	
EDEC 290	Early Literacy for the Young Child	
EDEC 297	Practicum	
ENGL 240	Children's Literature	
Total Semester Credit Hours		**8**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - Fine Arts		3
KINA Activity		1
Essential Learning - History		3
EDEC 101	Introduction to Early Childhood	3
	Semester Credit Hours	**16**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
EDEC 122	Ethics in Early Childhood Education	1
EDEC 240	Curriculum and Development: Early Childhood	3
KINE 100	Health and Wellness	1
Early Childhood Education Restricted Elective		3
EDEC 238 or PSYC 233	Early Childhood Development 0-8 Years or Human Growth and Development-GTSS3	3
	Semester Credit Hours	**14**
Second Year		
Fall Semester		
EDEC 113	Infant and Toddler Theory and Practice	3
MATH 110	Mathematical Investigations-GTMA1	3
Essential Learning - Natural Science with Lab		4
Essential Learning - Social and Behavioral Sciences		3
Early Childhood Education Restricted Elective		3
	Semester Credit Hours	**16**
Spring Semester		
EDEC 299	Student Teaching in Early Education	3
EDEC 250	Exceptionalities in Early Education	3
Essential Learning - Natural Science		3
Essential Learning - Humanities		3
Early Childhood Education Restricted Elective		2
	Semester Credit Hours	**14**
	Total Semester Credit Hours	**60**

Students that intend to continue with Colorado Mesa University should take ESSL 290 and ESSL 200 during the final semester of their Associate of Arts work.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for her/his intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A

student's "Intent to Graduate" does not automatically move to a later graduation date.

Education: Early Childhood Education (AAS)

Degree: Associate of Applied Science
Major: Early Childhood Education
Emphasis: Early Childhood Education
Program Code: 1394

This degree is designed for students who intend to enter the workforce upon completion. This degree also supports students who intend to continue their education and obtain a Baccalaureate in Applied Science Degree. The program aligns with state requirements for early childhood teacher certification and childcare center director qualifications. This degree includes 15 hours of the Colorado Statewide General Education Core and meets 15 hours of the lower division general education requirements at most public institutions in Colorado.

Important information about this program:

- Students must pass a background check.
- Students must possess current First Aid/CPR cards.
- Students must create a portfolio following department requirements.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this degree:

- Students must pass a background check.
- Students must possess current First Aid/CPR cards.
- Students must create a portfolio following department requirements.

Essential Learning Requirements

(18-19 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
SPCH 102	Speechmaking	3
Mathematics		
MATH 107	Career Math (or higher) [1]	3
Other Essential Learning Core Courses		
PSYC 150	General Psychology-GTSS3	3
or PSYC 233	Human Growth and Development-GTSS3	
Essential Learning Natural Science with/without lab		3-4
Total Semester Credit Hours		**18-19**

[1] Math 110 or higher is suggested if the student plans on pursing a four-year degree.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirements		
KINE 100	Health and Wellness	1
Select one Activity course		1
Total Semester Credit Hours		**2**

Program Specific Degree Requirements

(40 Hours - Must maintain a 2.5 cumulative GPA or higher in all coursework in the major content area.)

Code	Title	Semester Credit Hours
EDEC 101	Introduction to Early Childhood	3
EDEC 103	Guidance Strategies	3
EDEC 113	Infant and Toddler Theory and Practice	3
EDEC 122	Ethics in Early Childhood Education	1
EDEC 125	Science/Math and the Young Child	3
EDEC 205	Nutrition, Health, Safety	3
EDEC 238	Early Childhood Development 0-8 Years	3
EDEC 240	Curriculum and Development: Early Childhood	3
EDEC 241	Early Childhood Administration: Human Relations	3
EDEC 250	Exceptionalities in Early Education	3
EDEC 256	Working with Parents, Families, and Community Systems	3
EDEC 264	Administration in Early Education	3
EDEC 299	Student Teaching in Early Education	3
Restricted Electives		
Choose three credits from the following list of courses:		3
EDEC 100A	Parent Education and Infants	
EDEC 100B	Parent Education and Toddlers	
EDEC 100C	Parent Education and Early Preschool	
EDEC 100D	Parent Education and School Readiness	
EDEC 102	Introduction to Early Childhood Professions Lab Experiences	
EDEC 114	Introduction to Infant/Toddler Lab Techniques	
EDEC 126	Art and the Young Child	
EDEC 127	Music/Movement for the Young Children	
EDEC 196	Topics	
EDEC 200	Observation and Assessment in Early Childhood Education	
EDEC 201	Observation and Assessment in Early Childhood Techniques	
EDEC 230	Curriculum and Development: Infant/Toddler	
EDEC 237	Theories and Techniques of Social and Emotional Growth	
EDEC 290	Early Literacy for the Young Child	
EDEC 296	Topics	
Total Semester Credit Hours		**40**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
EDEC 101	Introduction to Early Childhood	3
EDEC 103	Guidance Strategies	3
EDEC 241	Early Childhood Administration: Human Relations	3
Essential Learning - Natural Science with/without lab		3-4
	Semester Credit Hours	**15-16**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
EDEC 125	Science/Math and the Young Child	3
EDEC 238	Early Childhood Development 0-8 Years	3
EDEC 264	Administration in Early Education	3
PSYC 150 or PSYC 233	General Psychology-GTSS3 or Human Growth and Development-GTSS3	3
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
EDEC 205	Nutrition, Health, Safety	3
EDEC 240	Curriculum and Development: Early Childhood	3
MATH 107	Career Math	3
SPCH 102	Speechmaking	3
EDEC Restricted Elective		3
	Semester Credit Hours	**15**
Spring Semester		
EDEC 113	Infant and Toddler Theory and Practice	3
EDEC 122	Ethics in Early Childhood Education	1
EDEC 250	Exceptionalities in Early Education	3
EDEC 256	Working with Parents, Families, and Community Systems	3
EDEC 299	Student Teaching in Early Education	3
KINE 100	Health and Wellness	1
KINA Activity Course		1
	Semester Credit Hours	**15**
	Total Semester Credit Hours	**60-61**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.

- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Education: Early Childhood Education with Prior CDA /EQIT Certifications (AAS)

Overview

Degree: Associate of Applied Science
Major: Early Childhood Education
Emphasis: Early Childhood Education with Prior CDA/EQIT Certifications
Program Code: 1405

This degree is designed for students who hold a current CDA Preschool, CDA Infant Toddler, and/or EQIT Certification and intend to enter the Early Childhood workforce upon completion of the degree. Copies of all CDA and the EQIT certificates must be provided to the Registrar's Office for the student's permanent record before the student is admitted to the program.

This degree also supports students who intend to continue their education and obtain a Baccalaureate in Applied Science Degree. The program aligns with state requirements for early childhood teacher certification and childcare center director qualifications. This degree includes 15 hours of the Colorado Statewide General Education Core and meets 15 hours of the lower division general education requirements at most public institutions in Colorado.

Important information about this program:

- The student must hold a current CDA Preschool, CDA Infant Toddler, and/or EQIT Certification and provide copies of all certifications to the Registrar's Office prior to enrolling in the program.
- Students must pass a background check.
- Students must possess current First Aid/CPR cards.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Apply the National Association for the Education of Young Children principles and practices in interactions with young children, families and other professionals. (Applied Learning)
2. Utilize STEM concepts to provide young children a foundational knowledge in science and math.(Quantitative Fluency)
3. Demonstrate effective written communication skills. (Communication Fluency)
4. Demonstrate effective verbal communication skills. (Communication Fluency)
5. Analyze interactions and teaching experiences from personal journals and administrative evaluations to improve teaching practices. (Critical Thinking and Specialized Knowledge)

Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.

- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this degree:

- Students must pass a background check.
- Students must possess current First Aid/CPR cards.
- Students must hold a current CDA Preschool, CDA Infant Toddler, and/or EQIT Certification prior to enrolling in the program.
- Credit granted for CDA/EQIT Certifications only apply to approved EDEC programs.

Essential Learning Requirements

(18-19 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
SPCH 102	Speechmaking	3
Mathematics		
MATH 107	Career Math (or higher) [1]	3
Other Essential Learning Core Courses		
PSYC 150	General Psychology-GTSS3	3
or PSYC 233	Human Growth and Development-GTSS3	
Essential Learning Natural Science with/without lab		3-4
Total Semester Credit Hours		**18-19**

[1] Math 110 or higher is suggested if the student plans on pursing a four-year degree.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirements		
KINE 100	Health and Wellness	1
Select one Activity course		1
Total Semester Credit Hours		**2**

Program Specific Degree Requirements

(40 Hours - Must maintain a 2.5 cumulative GPA or higher in all coursework in the major content area.)

Code	Title	Semester Credit Hours
EDEC 103	Guidance Strategies	3
EDEC 122	Ethics in Early Childhood Education	1
EDEC 125	Science/Math and the Young Child	3
EDEC 205	Nutrition, Health, Safety	3
EDEC 238	Early Childhood Development 0-8 Years	3
EDEC 240	Curriculum and Development: Early Childhood	3
EDEC 241	Early Childhood Administration: Human Relations	3
EDEC 250	Exceptionalities in Early Education	3
EDEC 256	Working with Parents, Families, and Community Systems	3
EDEC 264	Administration in Early Education	3
EDEC 299	Student Teaching in Early Education	3
Other Requirements		
Choose one of the following options:		*9*
CDA Infant Toddler plus EDEC 102		
CDA Preschool plus EDEC 113		
CDA Preschool plus EQIT		
Credit granted for CDA/EQIT Certifications only apply to approved EDEC Programs.		
Total Semester Credit Hours		**40**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.

- Submit the “Intent to Graduate” form to the Registrar’s Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's “Intent to Graduate” does not automatically move to a later graduation date.

Education: Early Childhood Education Assistant Teacher (Technical Certificate)

Award: Technical Certificate
Program of Study: Early Childhood Education Assistant Teacher
Program Code: 1195

The Early Childhood Education program is designed to prepare students to work with young children (birth to age eight) in a variety of settings. This certificate is designed for students wishing to work as lead teachers in a childcare classroom. Students who wish to work in licensed early childhood care and education programs may complete the sequence of courses for Early Childhood Education Assistant Teacher and then continue on to earn an Associate of Arts degree in Early Childhood Education. The Early Childhood Education Assistant Teacher certificate enables students to meet the educational qualifications established by the Colorado Department of Human Services.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Demonstrate effective written and verbal communication skills. (Communication Fluency
2. Evaluate current professional resources relating to several different domains of early childhood education. (Critical Thinking)
3. Explain the impact of the Colorado Department of Child Care Rules and Regulations on children and families. (Specialized Knowledge)
4. Apply the National Association for the Education of Young Children principles and practices in interactions with young children, families and other professionals. (Applied Learning)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than “C” will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Specific to this degree:

- 9 semester hours required for the Technical Certificate in Early Childhood Education Assistant Teacher.

Program Specific Certificate Requirements

(9 semester hours)

Code	Title	Semester Credit Hours
Required Courses:		
EDEC 101	Introduction to Early Childhood	3
Select one of the following:		*3*
EDEC 103	Guidance Strategies	
EDEC 113	Infant and Toddler Theory and Practice	
EDEC 205	Nutrition, Health, Safety	
EDEC 238	Early Childhood Development 0-8 Years	
EDEC 240	Curriculum and Development: Early Childhood	
EDEC 250	Exceptionalities in Early Education	
Select three credit hours from the following:		*3*

EDEC 102	Introduction to Early Childhood Professions Lab Experiences
EDEC 114	Introduction to Infant/Toddler Lab Techniques
EDEC 200	Observation and Assessment in Early Childhood Education
EDEC 201	Observation and Assessment in Early Childhood Techniques
EDEC 241	Early Childhood Administration: Human Relations
EDEC 256	Working with Parents, Families, and Community Systems
EDEC 299	Student Teaching in Early Education
Total Semester Credit Hours	**9**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
EDEC 101	Introduction to Early Childhood	3
Select one of the following:		3
EDEC 103	Guidance Strategies	
EDEC 113	Infant and Toddler Theory and Practice	
EDEC 205	Nutrition, Health, Safety	
EDEC 238	Early Childhood Development 0-8 Years	
EDEC 240	Curriculum and Development: Early Childhood	
EDEC 250	Exceptionalities in Early Education	
	Semester Credit Hours	**6**
Spring Semester		
Select three credit hours from the following:		3
EDEC 102	Introduction to Early Childhood Professions Lab Experiences	
EDEC 114	Introduction to Infant/Toddler Lab Techniques	
EDEC 200	Observation and Assessment in Early Childhood Education	
EDEC 201	Observation and Assessment in Early Childhood Techniques	
EDEC 241	Early Childhood Administration: Human Relations	
EDEC 256	Working with Parents, Families, and Community Systems	
EDEC 299	Student Teaching in Early Education	
	Semester Credit Hours	**3**
	Total Semester Credit Hours	**9**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Education: Early Childhood Education Director (Technical Certificate)

Award: Technical Certificate
Program of Study: Early Childhood Education Director
Program Code: 1192

This certificate prepares students for careers in licensed early childhood care and education programs. The Director certificate enables students to meet the educational qualifications of the Colorado Department of Human Services. Students who wish to work in licensed early childhood classrooms may complete the Director sequence and then continue on to earn an Associate of Arts degree in Early Childhood Education. Career options include opportunities in childcare centers and pre-schools both public and private.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Demonstrate effective written and verbal communication skills (Communication Fluency)
2. Utilize mathematical concepts required to create a child care business budget (Specialized Knowledge)
3. Analyze data collected from different evaluation tools to create logical next-step solutions for improving quality in a child care business. (Critical Thinking)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(30 semester hours, must maintain a 2.00 cumulative GPA or higher in all coursework.

Code	Title	Semester Credit Hours
Required Courses		
EDEC 101	Introduction to Early Childhood	3
EDEC 102	Introduction to Early Childhood Professions Lab Experiences	3
or EDEC 299	Student Teaching in Early Education	
EDEC 103	Guidance Strategies	3
EDEC 113	Infant and Toddler Theory and Practice	3
EDEC 205	Nutrition, Health, Safety	3
EDEC 238	Early Childhood Development 0-8 Years	3
EDEC 240	Curriculum and Development: Early Childhood	3
EDEC 241	Early Childhood Administration: Human Relations	3
EDEC 250	Exceptionalities in Early Education	3
EDEC 264	Administration in Early Education	3
Total Semester Credit Hours		**30**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
EDEC 101	Introduction to Early Childhood	3
EDEC 103	Guidance Strategies	3
EDEC 113	Infant and Toddler Theory and Practice	3
EDEC 241	Early Childhood Administration: Human Relations	3
EDEC 205	Nutrition, Health, Safety	3
	Semester Credit Hours	**15**
Spring Semester		
EDEC 102	Introduction to Early Childhood Professions Lab Experiences	3
EDEC 238	Early Childhood Development 0-8 Years	3
EDEC 264	Administration in Early Education	3
EDEC 240	Curriculum and Development: Early Childhood	3
EDEC 250	Exceptionalities in Early Education	3
	Semester Credit Hours	**15**
	Total Semester Credit Hours	**30**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.

- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the “Intent to Graduate” form to the Registrar’s Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's “Intent to Graduate” does not automatically move to a later graduation date.

Education: Early Childhood Education Director with CDA Infant Toddler (Technical Certificate)

Overview

Award: Technical Certificate
Program of Study: Early Childhood Education Director with CDA Infant Toddler
Program Code: 1201

For students to enter this program, the student must hold a current CDA Infant Toddler Certification and provide proof of the Certification (copy of the current certification) to the Registrar's Office for the student's permanent file. EQIT Certification may or may not be presented to the Registrar's Office with the CDA Infant Toddler Certification. The Director certificate prepares students for careers in licensed early childhood care and education programs. The Director certificate enables students to meet the educational qualifications of the Colorado Department of Human Services. Students who wish to work in licensed early childhood classrooms may complete the Director sequence and then continue on to earn an Associate of Arts degree in Early Childhood Education. Career options include opportunities in childcare centers and pre-schools both public and private.

Specific Requirements of this Program:

The student must hold a current CDA Infant Toddler Certification and provide a copy of the certification to the Registrar's Office prior to enrolling in the program. EQIT Certification is optional.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Demonstrate effective oral and written communication skills. (Communication Fluency)
2. Analyze data collected from different evaluation tools to create logical next-step solutions for improving quality in a child care business. (Critical Thinking)
3. Utilize mathematical concepts required to create a child care business budget. (Specialized Knowledge)

Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than “C” will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than “C” will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with

your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this program:

- Must hold a current CDA Infant Toddler Certification for entry into the program. EQIT Certification is optional.

Program Specific Requirements

(24 semester hours, must maintain a 2.00 cumulative GPA or higher in all coursework. CDA Infant Toddler Certification required for entry into this program. EQIT Certification is optional.)

Code	Title	Semester Credit Hours
Required Courses		
EDEC 102	Introduction to Early Childhood Professions Lab Experiences	3
or EDEC 299	Student Teaching in Early Education	
EDEC 103	Guidance Strategies	3
EDEC 205	Nutrition, Health, Safety	3
EDEC 238	Early Childhood Development 0-8 Years	3
EDEC 240	Curriculum and Development: Early Childhood	3
EDEC 241	Early Childhood Administration: Human Relations	3
EDEC 250	Exceptionalities in Early Education	3
EDEC 264	Administration in Early Education	3
Total Semester Credit Hours		**24**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
EDEC 102 or EDEC 299	Introduction to Early Childhood Professions Lab Experiences or Student Teaching in Early Education	3
EDEC 103	Guidance Strategies	3
EDEC 241	Early Childhood Administration: Human Relations	3
EDEC 205	Nutrition, Health, Safety	3
	Semester Credit Hours	**12**
Spring Semester		
EDEC 238	Early Childhood Development 0-8 Years	3
EDEC 264	Administration in Early Education	3
EDEC 240	Curriculum and Development: Early Childhood	3
EDEC 250	Exceptionalities in Early Education	3
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**24**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Education: Early Childhood Education Director with CDA Preschool (Technical Certificate)

Overview

Award: Technical Certificate
Program of Study: Early Childhood Education Director with CDA Preschool
Program Code: 1202

For students to enter this program, the student must hold a current CDA Preschool Certification and provide proof of the Certification by providing a copy of the Certificate to the Registrar's Office for the student's permanent file. This certificate prepares students for careers in licensed early childhood care and education programs. The Director certificate enables students to meet the educational qualifications of the Colorado Department of Human Services. Students who wish to work in licensed early childhood classrooms may complete the Director sequence and then continue on to earn an Associate of Arts degree in Early Childhood Education. Career options include opportunities in childcare centers and preschools both public and private.

Specific Requirements of this Program:

- The student must hold a current CDA Infant Toddler Certification and provide a copy of the certification to the Registrar's Office prior to enrolling in the program.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Demonstrate effective oral and written communication skills. (Communication Fluency)
2. Analyze data collected from different evaluation tools to create logical next-step solutions for improving quality in a child care business. (Critical Thinking)
3. Utilize mathematical concepts required to create a child care business budget. (Specialized Knowledge)

Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this program:

- Must hold a current CDA Preschool Certification before entry into the program.

Program Specific Certificate Requirements

(24 semester hours, must maintain a 2.00 cumulative GPA or higher in all coursework. CDA Preschool Certification required for entry into this program.)

Code	Title	Semester Credit Hours
Required Courses		
EDEC 103	Guidance Strategies	3
EDEC 113	Infant and Toddler Theory and Practice	3
EDEC 205	Nutrition, Health, Safety	3
EDEC 238	Early Childhood Development 0-8 Years	3
EDEC 240	Curriculum and Development: Early Childhood	3
EDEC 241	Early Childhood Administration: Human Relations	3
EDEC 250	Exceptionalities in Early Education	3
EDEC 264	Administration in Early Education	3
Total Semester Credit Hours		**24**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
EDEC 103	Guidance Strategies	3
EDEC 113	Infant and Toddler Theory and Practice	3
EDEC 241	Early Childhood Administration: Human Relations	3
EDEC 205	Nutrition, Health, Safety	3
	Semester Credit Hours	**12**

Spring Semester		
EDEC 238	Early Childhood Development 0-8 Years	3
EDEC 264	Administration in Early Education	3
EDEC 240	Curriculum and Development: Early Childhood	3
EDEC 250	Exceptionalities in Early Education	3
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**24**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Education: Early Childhood Education Director with CDA Preschool & EQIT (Technical Certificate)

Overview

Award: Technical Certificate
Program of Study: Early Childhood Education Director with CDA Preschool & EQIT
Program Code: 1203

For students to enter this program, the student must hold a current CDA Preschool Certification and EQIT Certification and provide copies of the certifications to the Registrar's Office for the student's permanent file. The ECE Director Certificate prepares students for careers in licensed early childhood care and education programs. The Director certificate enables students to meet the educational qualifications of the Colorado Department of Human Services. Students who wish to work in licensed early childhood classrooms may complete the Director sequence and then continue on to earn an Associate of Arts degree in Early Childhood Education. Career options include opportunities in childcare centers and pre-schools both public and private.

Specific Requirements of this Program:

- The student must hold a current CDA Infant Toddler Certification and a current EQIT Certification and provide a copy of the certification to the Registrar's Office prior to enrolling in the program.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Demonstrate effective oral and written communication skills. (Communication Fluency)
2. Analyze data collected from different evaluation tools to create logical next-step solutions for improving quality in a child care business. (Critical Thinking)
3. Create documents that are substantially error-free for families, staff and government agencies using current early childhood professional terminology. (Applied Learning)

Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.

- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than “C” will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Specific to this program:

- Must hold both a current CDA Preschool Certification and a current EQIT Certification before entry into the program.

Program Specific Certificate Requirements

(21 semester hours, must maintain a 2.00 cumulative GPA or higher in all coursework. CDA Preschool Certification and EQIT Certification required for entry into this program.)

Code	Title	Semester Credit Hours
Required Courses		
EDEC 103	Guidance Strategies	3
EDEC 205	Nutrition, Health, Safety	3
EDEC 238	Early Childhood Development 0-8 Years	3
EDEC 240	Curriculum and Development: Early Childhood	3
EDEC 241	Early Childhood Administration: Human Relations	3
EDEC 250	Exceptionalities in Early Education	3
EDEC 264	Administration in Early Education	3
Total Semester Credit Hours		**21**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
EDEC 103	Guidance Strategies	3
EDEC 241	Early Childhood Administration: Human Relations	3
EDEC 205	Nutrition, Health, Safety	3
	Semester Credit Hours	**9**
Spring Semester		
EDEC 238	Early Childhood Development 0-8 Years	3
EDEC 264	Administration in Early Education	3
EDEC 240	Curriculum and Development: Early Childhood	3
EDEC 250	Exceptionalities in Early Education	3
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**21**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student’s responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar’s Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar’s Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the “Intent to Graduate” form to the Registrar’s Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A

student's "Intent to Graduate" does not automatically move to a later graduation date.

Education: Early Childhood Education Entry-Level Teacher (Technical Certificate)

Award: Technical Certificate
Program of Study: Early Childhood Education Entry-Level Teacher
Program Code: 1194

The Early Childhood Education program is designed to prepare students to work with young children (birth to age eight) in a variety of settings. This certificate is designed for students wishing to work as lead teachers in a childcare classroom. Students who wish to work in licensed early childhood care and education programs may complete the sequence of courses for Early Childhood Education Entry-Level Teacher then continue on to earn additional Technical Certificates and Associate of Arts/Associate of Applied Sciences degree in Early Childhood Education. The Early Childhood Education Entry-Level Teacher certificate enables students to meet the educational qualifications established by the Colorado Department of Human Services.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Demonstrate effective written communication skills. (Communication Fluency)
2. Explain the value of play in Early Childhood Education care and education setting. (Critical Thinking)
3. Identify three of the regulatory agencies governing early care and education in the state of Colorado. (Specialized Knowledge)
4. Utilize the Colorado Department of Education Authentic Child Assessment guidelines to complete a child observation and assessment. (Applied Learning)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(6 semester hours, must maintain a 2.00 cumulative GPA or higher in all coursework.)

Code	Title	Semester Credit Hours
Required Courses		
Select one of the following:		3
EDEC 101	Introduction to Early Childhood (or)	
EDEC 113	Infant and Toddler Theory and Practice	
Select one or more of the following totaling 3 credits:		3
EDEC 102	Introduction to Early Childhood Professions Lab Experiences	
EDEC 103	Guidance Strategies	
EDEC 114	Introduction to Infant/Toddler Lab Techniques	
EDEC 122	Ethics in Early Childhood Education	
EDEC 125	Science/Math and the Young Child	
EDEC 126	Art and the Young Child	
EDEC 127	Music/Movement for the Young Children	
EDEC 205	Nutrition, Health, Safety	
EDEC 238	Early Childhood Development 0-8 Years	
EDEC 241	Early Childhood Administration: Human Relations	
EDEC 256	Working with Parents, Families, and Community Systems	

EDEC 290	Early Literacy for the Young Child	
Total Semester Credit Hours		**6**

Suggested Course Plan

Certificate can be completed in any semester: Fall, Spring, or Summer.

First Year		
Fall Semester		**Semester Credit Hours**
EDEC 101 or EDEC 113	Introduction to Early Childhood or Infant and Toddler Theory and Practice	3
Select one or more of the following totaling 3 credits		3
EDEC 102	Introduction to Early Childhood Professions Lab Experiences	
EDEC 103	Guidance Strategies	
EDEC 114	Introduction to Infant/Toddler Lab Techniques	
EDEC 122	Ethics in Early Childhood Education	
EDEC 125	Science/Math and the Young Child	
EDEC 126	Art and the Young Child	
EDEC 127	Music/Movement for the Young Children	
EDEC 205	Nutrition, Health, Safety	
EDEC 238	Early Childhood Development 0-8 Years	
EDEC 241	Early Childhood Administration: Human Relations	
EDEC 256	Working with Parents, Families, and Community Systems	
EDEC 290	Early Literacy for the Young Child	
	Semester Credit Hours	**6**
	Total Semester Credit Hours	**6**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Education: Early Childhood Education Teacher (Technical Certificate)

Award: Technical Certificate
Program of Study: Early Childhood Education Teacher
Program Code: 1193

The Early Childhood Education program is designed to prepare students to work with young children (birth to age eight in a variety of settings. This certificate is designed for students wishing to work as lead teachers in a childcare classroom. Students who wish to work in licensed early childhood care and education programs may complete the sequence of courses for Early Childhood Education Teacher and then continue on to earn an Associate of Arts degree in Early Childhood Education. The Early Childhood Education Teacher certificate enables students to meet the educational qualifications established by the Colorado Department of Human Services.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Demonstrate effective written and verbal communication skills. (Communication Fluency)
2. Evaluate current professional resources relating to several different domains of early childhood education. (Critical Thinking)
3. Create documents that are substantially error-free for children and families using current early childhood professional terminology (Specialized Knowledge)
4. Apply the National Association for the Education of Young Children principles and practices in interactions with young children, families and other professionals. (Applied Learning)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option

prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(16 semester hours, must maintain a 2.00 cumulative GPA or higher in all coursework.)

Code	Title	Semester Credit Hours
Required Courses		
EDEC 101	Introduction to Early Childhood	3
or EDEC 113	Infant and Toddler Theory and Practice	
EDEC 122	Ethics in Early Childhood Education	1
EDEC 238	Early Childhood Development 0-8 Years	3
EDEC 240	Curriculum and Development: Early Childhood	3
Select three credits from the following:		*3*
EDEC 102	Introduction to Early Childhood Professions Lab Experiences	
EDEC 114	Introduction to Infant/Toddler Lab Techniques	
EDEC 200	Observation and Assessment in Early Childhood Education	
EDEC 201	Observation and Assessment in Early Childhood Techniques	
EDEC 205	Nutrition, Health, Safety	
EDEC 241	Early Childhood Administration: Human Relations	
EDEC 256	Working with Parents, Families, and Community Systems	
EDEC 299	Student Teaching in Early Education	
Select one of the following:		*3*
EDEC 103	Guidance Strategies	
EDEC 250	Exceptionalities in Early Education	
Total Semester Credit Hours		**16**

Suggested Course Plan

First Year

Fall Semester		**Semester Credit Hours**
EDEC 101 or EDEC 113	Introduction to Early Childhood or Infant and Toddler Theory and Practice	3
EDEC 103 or EDEC 250	Guidance Strategies or Exceptionalities in Early Education	3
EDEC 122	Ethics in Early Childhood Education	1
	Semester Credit Hours	**7**
Spring Semester		
EDEC 238	Early Childhood Development 0-8 Years	3
EDEC 240	Curriculum and Development: Early Childhood	3
Select three credits from the following:		3
EDEC 102	Introduction to Early Childhood Professions Lab Experiences	
EDEC 114	Introduction to Infant/Toddler Lab Techniques	
EDEC 205	Nutrition, Health, Safety	
EDEC 200	Observation and Assessment in Early Childhood Education	
EDEC 201	Observation and Assessment in Early Childhood Techniques	
EDEC 241	Early Childhood Administration: Human Relations	
EDEC 256	Working with Parents, Families, and Community Systems	
EDEC 299	Student Teaching in Early Education	
	Semester Credit Hours	**9**
	Total Semester Credit Hours	**16**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the “Intent to Graduate” form to the Registrar’s Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's “Intent to Graduate” does not automatically move to a later graduation date.

Education: Early Childhood Education Teacher with CDA Infant Toddler (Technical Certificate)

Overview

Award: Technical Certificate
Program of Study: Early Childhood Education Teacher with CDA Infant Toddler
Program Code: 1204

The Early Childhood Education program is designed to prepare students to work with young children (birth to age eight) in a variety of settings. This certificate is designed for students who hold the CDA Infant Toddler Certification and wish to work as lead teachers in a childcare classroom. The student must hold a current CDA Infant Toddler Certification and provide proof of this current licensure by providing a copy of the certification to the Registrar's Office prior to enrolling in the program. Students who wish to work in licensed early childhood care and education programs may complete the sequence of courses for Early Childhood Education Teacher and then continue on to earn an Associate of Arts degree in Early Childhood Education. The Early Childhood Education Teacher certificate enables students to meet the educational qualifications established by the Colorado Department of Human Services.

Specific Requirements:

- Students must hold a current CDA Infant Toddler Certification for admission to the program.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Demonstrate effective written and verbal communication skills. (Communication Fluency)
2. Evaluate current professional resources relating to several different domains of early childhood education. (Critical Thinking)
3. Create documents that are substantially error-free for children and families using current early childhood professional terminology (Specialized Knowledge)

Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than “C” will not be counted toward meeting the requirements.

- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this program:

- The student must hold a current CDA Infant Toddler Certification and provide proof of this current licensure by providing a copy of the certification to the Registrar's Office prior to enrolling in the program.

Program Specific Certificate Requirements

(13 semester hours, must maintain a 2.00 cumulative GPA or higher in all coursework.)

Code	Title	Semester Credit Hours
Required Courses		
EDEC 122	Ethics in Early Childhood Education	1
EDEC 238	Early Childhood Development 0-8 Years	3
EDEC 240	Curriculum and Development: Early Childhood	3
Select three credits from the following:		*3*
EDEC 102	Introduction to Early Childhood Professions Lab Experiences	
EDEC 114	Introduction to Infant/Toddler Lab Techniques	
EDEC 200	Observation and Assessment in Early Childhood Education	
EDEC 201	Observation and Assessment in Early Childhood Techniques	
EDEC 205	Nutrition, Health, Safety	
EDEC 241	Early Childhood Administration: Human Relations	
EDEC 256	Working with Parents, Families, and Community Systems	
EDEC 299	Student Teaching in Early Education	
Select one of the following:		*3*
EDEC 103	Guidance Strategies	
EDEC 250	Exceptionalities in Early Education	
Total Semester Credit Hours		**13**

Suggested Course Plan

First Year

Fall Semester		**Semester Credit Hours**
EDEC 103 or EDEC 250	Guidance Strategies or Exceptionalities in Early Education	3
EDEC 122	Ethics in Early Childhood Education	1
	Semester Credit Hours	**4**
Spring Semester		
EDEC 238	Early Childhood Development 0-8 Years	3
EDEC 240	Curriculum and Development: Early Childhood	3
Select three credits from the following:		3
EDEC 102	Introduction to Early Childhood Professions Lab Experiences	
EDEC 114	Introduction to Infant/Toddler Lab Techniques	
EDEC 200	Observation and Assessment in Early Childhood Education	
EDEC 201	Observation and Assessment in Early Childhood Techniques	
EDEC 205	Nutrition, Health, Safety	
EDEC 241	Early Childhood Administration: Human Relations	
EDEC 256	Working with Parents, Families, and Community Systems	
EDEC 299	Student Teaching in Early Education	
	Semester Credit Hours	**9**
	Total Semester Credit Hours	**13**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical

to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Education: Early Childhood Education Teacher with CDA Preschool or EQIT (Technical Certificate)

Overview

Award: Technical Certificate
Program of Study: Early Childhood Education Teacher with CDA Preschool or EQIT
Program Code: 1205

The Early Childhood Education program is designed to prepare students to work with young children (birth to age eight) in a variety of settings. This certificate is designed for students who hold the CDA Preschool Certification and/or the EQIT Certification and wish to work as lead teachers in a childcare classroom. The student must hold a current CDA Preschool Certification and the EQIT Certification and provide proof of these current licensures by providing a copy of the certification to the Registrar's Office prior to enrolling in the program. The ECE Teacher Certificate is designed for students wishing to work as lead teachers in a childcare classroom. Students who wish to work in licensed early childhood care and education programs may complete the sequence of courses for Early Childhood Education Teacher and then continue on to earn an Associate of Arts degree in Early Childhood Education. The Early Childhood Education Teacher certificate enables students to meet the educational qualifications established by the Colorado Department of Human Services.

Specific Requirements of this Program:

- The student must hold a current CDA Preschool Certification and/or the EQIT Certification and provide a copy of the certification to the Registrar's Office prior to enrolling in the program.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Demonstrate effective written and verbal communication skills. (Communication Fluency)
2. Evaluate current professional resources relating to several different domains of early childhood education. (Critical Thinking)
3. Create documents that are substantially error-free for children and families using current early childhood professional terminology (Specialized Knowledge)

Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this program:

- The student must hold a current CDA Preschool Certification and/or the EQIT Certification and provide proof of these current licensures by providing a copy of the certifications to the Registrar's Office prior to enrolling in the program.

Program Specific Certificate Requirements

(10 semester hours, must maintain a 2.00 cumulative GPA or higher in all coursework.)

Code	Title	Semester Credit Hours
Required Courses		
EDEC 122	Ethics in Early Childhood Education	1
EDEC 238	Early Childhood Development 0-8 Years	3
EDEC 240	Curriculum and Development: Early Childhood	3
Select one of the following:		*3*
EDEC 103	Guidance Strategies	
EDEC 250	Exceptionalities in Early Education	
Total Semester Credit Hours		**10**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
EDEC 103 or EDEC 250	Guidance Strategies or Exceptionalities in Early Education	3
EDEC 122	Ethics in Early Childhood Education	1
EDEC 238	Early Childhood Development 0-8 Years	3
	Semester Credit Hours	**7**
Spring Semester		
EDEC 240	Curriculum and Development: Early Childhood	3
	Semester Credit Hours	**3**
	Total Semester Credit Hours	**10**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Education: Teacher Licensure

Program Description

The Center for Teacher Education offers Initial Teaching License programs in elementary, secondary and K-12 education. An Initial Teaching License for public schools in the state of Colorado requires each teacher candidate to complete coursework in a content area and a sequence of professional education courses that include extensive field experience and classroom placements. For undergraduate students, teacher license coursework and field experiences are completed through the Center for Teacher Education, while the content degree coursework is completed in the academic department of the discipline area. Both departments coordinate to assist teacher candidates in completing the program. Formal admission to the Center for Teacher Education is required of all students planning to obtain a Colorado Educator License. Admission to Colorado Mesa University does not guarantee admission to the Teacher Education program, which requires a separate application process. Contact the Center for Teacher Education for information; also see the section in this catalog on the Center for Teacher Education.

In order to complete all license requirements in a timely manner, it is important that students contact the center as soon as possible after enrolling at Colorado Mesa University. Interested students should enroll in EDUC 115 and EDUC 215 before applying for formal admission to the Center for Teacher Education.

Please see Graduate Programs (p. 85) for post-graduate options for the initial teaching license.

Contact Information

Center for Teacher Education
Dominguez Hall, Suite 109
970.248.1786

Programs of Study

Graduate

- Applied Mathematics (Graduate Certificate) (p. 391)
- Education: Applied Mathematics (MAEd) (p. 373)
- Education: Educational Leadership (EDLD) (Graduate Certificate) (p. 393)
- Education: Educational Leadership (EDLD) (MAEd) (p. 375)
- Education: Exceptional Learner/Special Education (EDSE) (Graduate Certificate) (p. 394)
- Education: Exceptional Learner/Special Education (EDSE) (MAEd) (p. 377)
- Education: Initial Teacher Licensure - Elementary (Graduate Certificate) (p. 396)
- Education: Initial Teacher Licensure - Elementary (MAEd) (p. 379)
- Education: Initial Teacher Licensure - Secondary (Graduate Certificate) (p. 398)
- Education: Initial Teacher Licensure - Secondary (MAEd) (p. 380)
- Education: Initial Teacher Licensure K-12 Physical Education (Graduate Certificate) (p. 384)
- Education: Initial Teacher Licensure K-12 Physical Education (MAEd) (p. 382)
- Education: Rhetoric and Literary Studies (MAEd) (p. 387)
- Education: Social Science (MAEd) (p. 389)
- Education: Teaching and Leadership (EDTL) (MAEd) (p. 386)
- Rhetoric and Literary Studies (Graduate Certificate) (p. 399)
- Social Science (Graduate Certificate) (p. 401)

The following programs are inactive and not accepting applicants:

- Education: English for Speakers of Other Languages (ESOL) (Graduate Certificate)
- Education: English for Speakers of Other Languages (ESOL) (MAEd)

Education: Applied Mathematics (MAEd)

Award: Master of Arts in Education
Program of Study: Applied Mathematics
Program Code: 8241

This program is no longer accepting new students.

The Master of Arts in Education, Applied Mathematics is a 33-hour program.

Important information about this program:

- A bachelor's degree from an accredited college is required, prior to beginning the program.
- A fully completed application including official transcripts is required prior to beginning the program.
- Acceptance into the Applied Mathematics graduate certificate program.
- 33 semester hours and capstone presentation are required for the Master of Arts in Education Degree in Applied Mathematics.
- It is recommended that students work closely with a faculty advisor when selecting courses and scheduling classes prior to registration.

As a component of this program, students will earn an Graduate Certificate in Applied Mathematics prior to beginning coursework specific to the Master of Arts in Education in Applied Mathematics degree. Upon completion of the Graduate Certificate in Applied Mathematics, graduates will be able to:

1. Employ mathematical, computational and/or statistical methods to address topics in applied mathematics (specialized knowledge/applied learning, quantitative fluency);
2. Create oral and written arguments, well-grounded in theories and methods of applied mathematics (communication fluency, quantitative fluency);
3. Formulate and evaluate hypotheses related to applied problems, issues, concepts, and perspectives (critical thinking, quantitative fluency).

All CMU masters-level graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, information literacy, and ethical reasoning. In addition to these campus-wide student learning outcomes, a graduate of this program will be able to:

1. Create and deliver oral and written communication based on sound educational theory and research for public education. (Communication Fluency)

2. Evaluate and formulate education plans based on research, current issues, and public education stakeholders. (Critical Thinking and Specialized Knowledge)
3. Synthesize, evaluate, and refine information from an information base of scholarly resources. (Information Literacy)
4. Evaluate and articulate responses to moral, ethical, legal, and professional challenges for instruction. (Ethical Reasoning)
5. Employ statistically valid processes to analyze assessment data to evaluate student learning with respect to district, state, and federal goals. (Quantitative Fluency)
6. Work individually and collaboratively on research based change and innovation in education. (Specialized Knowledge and Applied Learning).

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Graduate Degree Requirements

The following institutional requirements apply to all CMU graduate-level degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Graduate certificates consist of a minimum of 5 credit hours. Master's degrees consist of a minimum of 30 credit hours. Doctoral degrees consist of a minimum of 60 credit hours.
- All credits in a graduate program must be minimally at the 500-level.
- At least fifty percent of the credit hours must be taken at CMU.
- Students must achieve a 3.00 cumulative GPA or higher in all CMU coursework.
- Students may not apply coursework with a grade lower than a "B" toward graduation requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Graduate Degree Requirements (p. 87)" in this catalog for a complete list of graduation requirements.
- All policies for graduate degrees are outlined in the Graduate Policies and Procedures Manual, Capstone Guidelines Manual, and Thesis and Dissertation Guidelines Manual, all of which are provided on the Graduate Studies website.

Program Specific Requirements

(33 semester hours, must pass all courses with a grade of "B" or better.)

- 33 semester hours *and* capstone presentation are required for the Master of Arts in Education Degree in Applied Mathematics.
- It is recommended that students work closely with a faculty advisor when selecting courses and scheduling classes prior to registration.

Code	Title	Semester Credit Hours
Required Courses		
MATH 500	Introduction to Graduate Studies in Applied Mathematics	3
MATH 510	Applied Probability and Statistics	3
MATH 520	Applied Numerical Methods	3
Restricted Elective Courses		
Select 9 credits from the following courses:		9
MATH 530	Applied Mathematical Modeling	
MATH 540	Applied Audio and Image Processing	
MATH 550	Mathematical Logic and Foundations in Mathematics	
MATH 560	Applied Number Theory	
MATH 570	Applied Cryptography	
MATH 596	Topics	
Master of Arts in Education Core Courses		
EDUC 500	Culture and Pedagogy	3
EDUC 501	Educational Technology	2
EDUC 502	Theory, Design & Assessment of Curriculum	3
EDUC 503	Introduction to Educational Research and Design	3
EDTL 513	Information Based Educational Practice and Statistics	3
EDUC 600	Master's in Education Capstone	1
Total Semester Credit Hours		**33**

Suggested Course Plan

First Year		
Summer Semester		**Semester Credit Hours**
EDUC 502	Theory, Design & Assessment of Curriculum	3
MATH 500	Introduction to Graduate Studies in Applied Mathematics	3
	Semester Credit Hours	**6**
Fall Semester		
EDUC 501	Educational Technology	2
MATH 510	Applied Probability and Statistics	3
	Semester Credit Hours	**5**
Spring Semester		
EDTL 513	Information Based Educational Practice and Statistics	3
MATH 520	Applied Numerical Methods	3
	Semester Credit Hours	**6**
Second Year		
Summer Semester		
EDUC 500	Culture and Pedagogy	3
EDUC 503	Introduction to Educational Research and Design	3
Restricted Elective		3
	Semester Credit Hours	**9**

Fall Semester		
EDUC 600	Master's in Education Capstone	1
Restricted Elective		3
	Semester Credit Hours	**4**
Spring Semester		
Restricted Elective		3
	Semester Credit Hours	**3**
	Total Semester Credit Hours	**33**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Education: Educational Leadership (EDLD) (MAEd)

Degree: Master of Arts in Education
Program of Study: Educational Leadership (EDLD)
Program Code: 8201

The Master of Arts in Education, Educational Leadership/Principal Licensure is designed as a dynamic program to meet the needs of education professionals as they gain additional expertise in one or more state endorsement areas. The degree is awarded after successful completion of 36 semester hours for the Educational Leadership concentration. The program is designed to provide the student with 12 hours of Master's foundation courses in theory of curriculum design and assessment, educational technology, culture and pedagogy, research, and a capstone project. The subsequent courses focus on Educational Leadership skills and competencies.

The program is guided and adheres to the Colorado Professional Standards for Principals. Admission to the program follows the stated guidelines for graduate admission procedures outlined in the university catalog. Additionally, students must provide three letters of reference from the profession, educator professional license, and a statement of purpose. Applicants must hold a valid teaching licensure to be considered for admission. The degree is granted after completion of all courses with a grade of B or better, successful completion of a capstone project, and a ranking of proficient or better on all elements of a comprehensive exam.

Important information about this program:

- A bachelor's degree from an accredited college is required, prior to beginning the program.
- A fully completed application including official transcripts is required prior to beginning the program.
- Applicants must hold a valid Professional Colorado Educator License.
- It is recommended that students work closely with a faculty advisor when selecting courses and scheduling classes prior to registration.

All CMU masters-level graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, information literacy, and ethical reasoning. In addition to these campus-wide student learning outcomes, a graduate of this program will be able to:

1. Create and deliver oral and written communication based on sound educational theory and research for public education leadership. (Communication Fluency)
2. Evaluate and formulate education plans based on research, current issues, and public education stakeholders. (Critical Thinking and Specialized Knowledge)
3. Synthesize, evaluate, and refine information from an information base of scholarly resources. (Information Literacy)
4. Evaluate and articulate responses to moral, ethical, legal, and professional challenges from the perspective of an educational leader. (Ethical Reasoning)
5. Employ statistically valid processes to analyze assessment data to evaluate student learning with respect to district, state, and federal goals. (Quantitative Fluency)
6. Work individually and collaboratively on research-based change and innovation in Education. (Specialized Knowledge and Applied Learning)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information,

scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Graduate Degree Requirements

The following institutional requirements apply to all CMU graduate-level degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Graduate certificates consist of a minimum of 5 credit hours. Master's degrees consist of a minimum of 30 credit hours. Doctoral degrees consist of a minimum of 60 credit hours.
- All credits in a graduate program must be minimally at the 500-level.
- At least fifty percent of the credit hours must be taken at CMU.
- Students must achieve a 3.00 cumulative GPA or higher in all CMU coursework.
- Students may not apply coursework with a grade lower than a "B" toward graduation requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Graduate Degree Requirements (p. 87)" in this catalog for a complete list of graduation requirements.
- All policies for graduate degrees are outlined in the Graduate Policies and Procedures Manual, Capstone Guidelines Manual, and Thesis and Dissertation Guidelines Manual, all of which are provided on the Graduate Studies website.

Program Specific Requirements

(36 semester hours, must earn a "B" or better in each course)

- It is recommended that students work closely with a faculty advisor when selecting courses and scheduling classes prior to registration.

Code	Title	Semester Credit Hours
Core Courses		
EDUC 500	Culture and Pedagogy	3
EDUC 501	Educational Technology	2
EDUC 502	Theory, Design & Assessment of Curriculum	3
EDUC 503	Introduction to Educational Research and Design	3
EDUC 600	Master's in Education Capstone	1
Educational Leadership Courses		
EDLD 506	Leadership and Organizational Change	3
EDLD 515	Dynamic School Leadership in a Democratic Society: Introduction to School Administration	3
EDLD 520A	Principalship I	2
EDLD 520B	Principalship II	2
EDLD 532	School Finance and Legal Aspects of School Administration	3
EDLD 535	Internship in Educational Leadership I	1
EDLD 540	School Improvement and Accountability	3
EDLD 542	Instructional Supervision and Management/HR	3
EDLD 545	Internship in Educational Leadership II	1
EDTL 513	Information Based Educational Practice and Statistics	3
Comprehensive Exam [1]		
Total Semester Credit Hours		**36**

[1] Educational Leadership students are required to achieve proficiency on all elements of a comprehensive exam taken the final semester of the program. The written exam evaluates the critical thinking and problem solving skills of candidates in relation to the Colorado Professional Standards for Principals.

Suggested Course Plan

First Year		
Summer Semester		**Semester Credit Hours**
EDUC 502	Theory, Design & Assessment of Curriculum	3
EDUC 503	Introduction to Educational Research and Design	3
EDLD 515	Dynamic School Leadership in a Democratic Society: Introduction to School Administration	3
EDLD 520A	Principalship I	2
	Semester Credit Hours	**11**
Fall Semester		
EDUC 501	Educational Technology	2
EDLD 535	Internship in Educational Leadership I	1
EDLD 540	School Improvement and Accountability	3
EDLD 542	Instructional Supervision and Management/HR	3
	Semester Credit Hours	**9**
Spring Semester		
EDTL 513	Information Based Educational Practice and Statistics	3
EDLD 545	Internship in Educational Leadership II	1
EDUC 600	Master's in Education Capstone	1
EDLD 532	School Finance and Legal Aspects of School Administration	3
	Semester Credit Hours	**8**
Second Year		
Summer Semester		
EDUC 500	Culture and Pedagogy	3
EDLD 520B	Principalship II	2
EDLD 506	Leadership and Organizational Change	3
Comprehensive Exam		
	Semester Credit Hours	**8**
	Total Semester Credit Hours	**36**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses

and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Education: Exceptional Learner/ Special Education (EDSE) (MAEd)

Degree: Master of Arts in Education
Program of Study: Exceptional Learner/Special Education (EDSE)
Program Code: 8216

The Master of Arts in Education, Exceptional Learner/Special Education is designed as a dynamic program to meet the needs of education professionals as they gain additional expertise in one or more state endorsement areas. The degree is awarded after successful completion of 36 semester hours with a Capstone Project. The program is designed to provide the student with 12 hours of Master's foundation courses in theory of curriculum design and assessment, educational technology, culture and pedagogy, research, and a capstone project. The subsequent courses focus on Exceptional Learner/Special Education skills and competencies.

The program is designed in accordance with the Council for Exceptional Children (CEC) accreditation standards for Special Education generalist endorsement and approved by the Colorado Department of Education. Admission to the program follows the stated guidelines for graduate admission procedures outlined in the university catalog. Additionally, students must provide three letters of reference from the profession, educator professional license, and a statement of purpose. Only students with valid teaching licensure will be considered for admission. The degree is granted after completion of all courses with a grade of B or better and a ranking of proficient or better on a Capstone Project.

Important information for this program:

- A bachelor's degree from an accredited college is required, prior to beginning the program.
- Admission to the program follows the general admissions policies and procedures for graduate programs outlined in the university catalog and online.
- A Statement of Purpose commenting on your personal educational philosophy and interest in the program and evidence of active involvement with youth and a copy of your Colorado Teaching Certificate are required.
- It is recommended that students work closely with a faculty advisor when selecting courses and scheduling classes prior to registration.

All CMU masters-level graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, information literacy, and ethical reasoning. In addition to these campus-wide student learning outcomes, a graduate of this program will be able to:

1. Create and deliver oral and written communication based on sound educational theory and research in guiding instruction for learners who are exceptional. (Communication Fluency)
2. Evaluate and formulate education plans based on research and legal requirements outlined in federal legislation. (Critical Thinking and Specialized Knowledge)
3. Synthesize, evaluate, and refine information from an information base of scholarly resources. (Information Literacy)
4. Evaluate and articulate responses to moral, ethical, legal, and professional challenges from the perspective of an advocate for learners who are exceptional. (Ethical Reasoning)
5. Employ statistically valid processes to analyze assessment data to evaluate student learning with respect to district, state, and federal goals. (Quantitative Fluency)
6. Work individually and collaboratively on research-based change and innovation in Education. (Specialized Knowledge and Applied Learning)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Graduate Degree Requirements

The following institutional requirements apply to all CMU graduate-level degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Graduate certificates consist of a minimum of 5 credit hours. Master's degrees consist of a minimum of 30 credit hours. Doctoral degrees consist of a minimum of 60 credit hours.
- All credits in a graduate program must be minimally at the 500-level.
- At least fifty percent of the credit hours must be taken at CMU.
- Students must achieve a 3.00 cumulative GPA or higher in all CMU coursework.
- Students may not apply coursework with a grade lower than a "B" toward graduation requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Graduate Degree Requirements (p. 87)" in this catalog for a complete list of graduation requirements.
- All policies for graduate degrees are outlined in the Graduate Policies and Procedures Manual, Capstone Guidelines Manual, and Thesis and Dissertation Guidelines Manual, all of which are provided on the Graduate Studies website.

Program Specific Requirements

(36 semester hours, must earn a grade of "B" or better in each course.)

- It is recommended that students work closely with a faculty advisor when selecting courses and scheduling classes prior to registration.

Code	Title	Semester Credit Hours
Core Courses		
EDUC 500	Culture and Pedagogy	3
EDUC 501	Educational Technology	2
EDUC 502	Theory, Design & Assessment of Curriculum	3
EDUC 503	Introduction to Educational Research and Design	3
EDUC 600	Master's in Education Capstone	1
Exceptional Learner Courses		
EDSE 500	Foundation of Special Education Including Law	3
EDSE 501	Instructional Strategies in Special Education	3
EDSE 502	Behavioral Interventions for the Learner with Special Needs	3
EDSE 503	Methods of Teaching Students with Mild Disabilities Reading and Math	3
EDSE 506	Educating Students with Low Incidence Disabilities in Inclusive Environments	3
EDSE 510	The Learner Who is Twice Exceptional, Including Gifted and Talented	3
EDSE 515	Internship K-6 Elementary Practicum in Special Education	3
EDSE 520	Internship 6-12 Secondary Practicum in Special Education	3
Total Semester Credit Hours		**36**

Suggested Course Plan

First Year		
Summer Semester		**Semester Credit Hours**
EDUC 502	Theory, Design & Assessment of Curriculum	3
EDUC 503	Introduction to Educational Research and Design	3
EDSE 500	Foundation of Special Education Including Law	3
	Semester Credit Hours	**9**
Fall Semester		
EDUC 501	Educational Technology	2
EDSE 501	Instructional Strategies in Special Education	3
EDSE 515	Internship K-6 Elementary Practicum in Special Education	3
	Semester Credit Hours	**8**
Spring Semester		
EDSE 502	Behavioral Interventions for the Learner with Special Needs	3
EDSE 520	Internship 6-12 Secondary Practicum in Special Education	3
	Semester Credit Hours	**6**
Second Year		
Summer Semester		
EDUC 500	Culture and Pedagogy	3
EDSE 510	The Learner Who is Twice Exceptional, Including Gifted and Talented	3
	Semester Credit Hours	**6**
Fall Semester		
EDSE 503	Methods of Teaching Students with Mild Disabilities Reading and Math	3
	Semester Credit Hours	**3**
Spring Semester		
EDSE 506	Educating Students with Low Incidence Disabilities in Inclusive Environments	3
EDUC 600	Master's in Education Capstone	1
	Semester Credit Hours	**4**
	Total Semester Credit Hours	**36**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the “Intent to Graduate” form to the Registrar’s Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's “Intent to Graduate” does not automatically move to a later graduation date.

Education: Initial Teacher Licensure - Elementary (MAEd)

Degree: Master of Arts in Education
Program of Study: Initial Teacher Licensure – Elementary
Program Code: 8213

The Master of Arts in Education is designed as a dynamic program to meet the needs of education professionals as they gain additional expertise in one or more state endorsement areas or seek initial licensure. The degree is awarded after successful completion of 42 semester hours. The program is designed to provide the student with 12 hours of core courses in theory of curriculum design and assessment, educational technology, culture and pedagogy, research, and a capstone project. The additional coursework concentrates on Initial Teacher Licensure – Elementary concentration.

The program is designed using the cohort model with a group of participants completing all requirements in a two-year cycle. New cohorts may begin each summer. Admission to the program follows the stated guidelines for graduate admission procedures outlined in the university catalog. Additionally, students must provide three letters of reference, proof of working with youth, and a statement of purpose.

Important information about this degree:

- A bachelor’s degree from an accredited college is required, prior to beginning the program.
- A fully completed application including official transcripts is required prior to beginning the program.
- Pre-requisite leveling classes may be required prior to admittance to the program.
- It is recommended that students work closely with a faculty advisor when selecting courses and scheduling classes prior to registration.

All CMU masters-level graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, information literacy, and ethical reasoning. In addition to these campus-wide student learning outcomes, a graduate of this program will be able to:

1. Create and deliver oral and written communication based on sound elementary educational theory and research for public education instruction. (Communication Fluency)
2. Evaluate and formulate elementary education plans based on research, current issues, and public education stakeholders. (Critical Thinking and Specialized Knowledge)
3. Synthesize, evaluate, and refine information from an information base of scholarly resources. (Information Literacy)
4. Evaluate and articulate responses to moral, ethical, legal, and professional challenges from the perspective of an elementary educator. (Ethical Reasoning)
5. Employ statistically valid processes to analyze assessment data to evaluate student learning at the elementary level with respect to district, state, and federal goals. (Quantitative Fluency)
6. Work individually and collaboratively on research-based change and innovation in Education. (Specialized Knowledge and Applied Learning)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Graduate Degree Requirements

The following institutional requirements apply to all CMU graduate-level degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Graduate certificates consist of a minimum of 5 credit hours. Master’s degrees consist of a minimum of 30 credit hours. Doctoral degrees consist of a minimum of 60 credit hours.
- All credits in a graduate program must be minimally at the 500-level.
- At least fifty percent of the credit hours must be taken at CMU.
- Students must achieve a 3.00 cumulative GPA or higher in all CMU coursework.
- Students may not apply coursework with a grade lower than a “B” toward graduation requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.

- See "Graduate Degree Requirements (p. 87)" in this catalog for a complete list of graduation requirements.
- All policies for graduate degrees are outlined in the Graduate Policies and Procedures Manual, Capstone Guidelines Manual, and Thesis and Dissertation Guidelines Manual, all of which are provided on the Graduate Studies website.

Program Specific Requirements

(42 semester hours, must earn a grade of "B" or better in each course.)

- It is recommended that students work closely with a faculty advisor when selecting courses and scheduling classes prior to registration.

Code	Title	Semester Credit Hours
Core Courses		
EDUC 500	Culture and Pedagogy	3
EDUC 501	Educational Technology	2
EDUC 502	Theory, Design & Assessment of Curriculum	3
EDUC 503	Introduction to Educational Research and Design	3
EDUC 600	Master's in Education Capstone	1
ITL – Elementary Courses		
EDUC 521	Educational Foundations, Student Development, and Ethics	3
EDUC 562	Curriculum, Instruction, and Assessment	6
EDUC 578	Elementary Reading and Language Arts Theory and Methodology K-6	3
EDUC 585	Elementary Integrated Science, Social Studies, and Art Theory and Methodology K-6	3
EDUC 586	Accommodating Diverse and Exceptional Needs	3
EDUC 588	Elementary Mathematics Theory and Methodology K-6	3
EDUC 599A	ITL 3: Directed Teaching: Elementary Education	9
Total Semester Credit Hours		**42**

Suggested Course Plan

First Year		
Summer Semester		**Semester Credit Hours**
EDUC 521	Educational Foundations, Student Development, and Ethics	3
EDUC 562	Curriculum, Instruction, and Assessment	6
EDUC 586	Accommodating Diverse and Exceptional Needs	3
	Semester Credit Hours	**12**
Fall Semester		
EDUC 578	Elementary Reading and Language Arts Theory and Methodology K-6	3
EDUC 585	Elementary Integrated Science, Social Studies, and Art Theory and Methodology K-6	3
EDUC 588	Elementary Mathematics Theory and Methodology K-6	3
	Semester Credit Hours	**9**
Spring Semester		
EDUC 599A	ITL 3: Directed Teaching: Elementary Education	9
	Semester Credit Hours	**9**
Second Year		
Summer Semester		
EDUC 500	Culture and Pedagogy	3
EDUC 502	Theory, Design & Assessment of Curriculum	3
EDUC 503	Introduction to Educational Research and Design	3
	Semester Credit Hours	**9**
Fall Semester		
EDUC 501	Educational Technology	2
EDUC 600	Master's in Education Capstone	1
	Semester Credit Hours	**3**
	Total Semester Credit Hours	**42**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Education: Initial Teacher Licensure - Secondary (MAEd)

Degree: Master of Arts in Education
Program of Study: Initial Teacher Licensure – Secondary
Program Code: 8215

The Master of Arts in Education is designed as a dynamic program to meet the needs of education professionals as they gain additional expertise in one or more state endorsement areas or seek initial licensure.

The degree is awarded after successful completion of 42 semester hours. The program is designed to provide the student with 12 hours of core courses in theory of curriculum design and assessment, educational technology, culture and pedagogy, research, and a capstone project. The additional coursework allows the student to focus on a Post Baccalaureate Licensure Program – Secondary education concentration.

The program is designed using the cohort model with a group of participants completing all requirements in a two-year cycle. New cohorts may begin each year. Admission to the program follows the stated guidelines for graduate admission procedures outlined in the university catalog. Additionally, students must provide three letters of reference, proof of working with youth, and a statement of purpose.

Important information about this program:

- A bachelor's degree from an accredited college is required, prior to beginning the program.
- A fully completed application including official transcripts is required prior to beginning the program.
- Pre-requisite leveling classes may be required prior to admittance to the program.
- It is recommended that students work closely with a faculty advisor when selecting courses and scheduling classes prior to registration.

All CMU masters-level graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, information literacy, and ethical reasoning. In addition to these campus-wide student learning outcomes, a graduate of this program will be able to:

1. Create and deliver oral and written communication based on sound secondary level educational theory and research for public education instruction. (Communication Fluency)
2. Evaluate and formulate secondary education plans based on research, current issues, and public education stakeholders. (Critical Thinking and Specialized Knowledge)
3. Synthesize, evaluate, and refine information from an information base of scholarly resources. (Information Literacy)
4. Evaluate and articulate responses to moral, ethical, legal, and professional challenges from the perspective of a secondary educator. (Ethical Reasoning)
5. Employ statistically valid processes to analyze assessment data to evaluate student learning at the secondary level with respect to district, state, and federal goals. (Quantitative Fluency)
6. Work individually and collaboratively on research-based change and innovation in Education. (Specialized Knowledge and Applied Learning)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Graduate Degree Requirements

The following institutional requirements apply to all CMU graduate-level degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Graduate certificates consist of a minimum of 5 credit hours. Master's degrees consist of a minimum of 30 credit hours. Doctoral degrees consist of a minimum of 60 credit hours.
- All credits in a graduate program must be minimally at the 500-level.
- At least fifty percent of the credit hours must be taken at CMU.
- Students must achieve a 3.00 cumulative GPA or higher in all CMU coursework.
- Students may not apply coursework with a grade lower than a "B" toward graduation requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Graduate Degree Requirements (p. 87)" in this catalog for a complete list of graduation requirements.
- All policies for graduate degrees are outlined in the Graduate Policies and Procedures Manual, Capstone Guidelines Manual, and Thesis and Dissertation Guidelines Manual, all of which are provided on the Graduate Studies website.

Program Specific Requirements

(42 semester hours, must earn a grade of "B" or better in each course.)

- It is recommended that students work closely with a faculty advisor when selecting courses and scheduling classes prior to registration.

Code	Title	Semester Credit Hours
Core Courses		
EDUC 500	Culture and Pedagogy	3
EDUC 501	Educational Technology	2
EDUC 502	Theory, Design & Assessment of Curriculum	3
EDUC 503	Introduction to Educational Research and Design	3
EDUC 600	Master's in Education Capstone	1
Secondary Courses		
EDUC 521	Educational Foundations, Student Development, and Ethics	3
EDUC 562	Curriculum, Instruction, and Assessment	6
EDUC 570	Classroom Management	1
EDUC 586	Accommodating Diverse and Exceptional Needs	3
Complete one of the following, based on content area concentration:		2

EDUC 580A	Secondary Instructional Methods for English Language Arts	
EDUC 580B	Secondary Instructional Methods for Social Studies	
EDUC 580C	Secondary Instructional Methods for Mathematics	
EDUC 580D	Secondary Instructional Methods for Science	
EDUC 580E	Secondary Instructional Methods for Spanish	
EDUC 580	Secondary Instructional Methods Across the Curriculum	3
EDUC 584	Secondary Literacy Methods Across the Curriculum	3
EDUC 599B	ITL 3: Directed Teaching: Secondary Education	9
Total Semester Credit Hours		**42**

Suggested Course Plan

First Year		
Summer Semester		**Semester Credit Hours**
EDUC 521	Educational Foundations, Student Development, and Ethics	3
EDUC 562	Curriculum, Instruction, and Assessment	6
EDUC 586	Accommodating Diverse and Exceptional Needs	3
	Semester Credit Hours	**12**
Fall Semester		
EDUC 570	Classroom Management	1
EDUC 580	Secondary Instructional Methods Across the Curriculum	3
Complete one of the following, based on content area concentration:		2
EDUC 580A	Secondary Instructional Methods for English Language Arts	
EDUC 580B	Secondary Instructional Methods for Social Studies	
EDUC 580C	Secondary Instructional Methods for Mathematics	
EDUC 580D	Secondary Instructional Methods for Science	
EDUC 580E	Secondary Instructional Methods for Spanish	
EDUC 584	Secondary Literacy Methods Across the Curriculum	3
	Semester Credit Hours	**9**
Spring Semester		
EDUC 599B	ITL 3: Directed Teaching: Secondary Education	9
	Semester Credit Hours	**9**
Second Year		
Summer Semester		
EDUC 500	Culture and Pedagogy	3
EDUC 502	Theory, Design & Assessment of Curriculum	3
EDUC 503	Introduction to Educational Research and Design	3
	Semester Credit Hours	**9**
Fall Semester		
EDUC 501	Educational Technology	2
EDUC 600	Master's in Education Capstone	1
	Semester Credit Hours	**3**
	Total Semester Credit Hours	**42**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Education: Initial Teacher Licensure K-12 Physical Education (MAEd)

Degree: Master of Arts in Education
Program of Study: Initial Teacher Licensure K-12 Physical Education
Program Code: 8237

The Master of Arts in Education is designed as a dynamic program to meet the needs of education professionals as they gain additional expertise in one or more state endorsement areas or seek initial licensure. The degree is awarded after successful completion of 49 semester hours. The program is designed to provide the student with 12 hours of core courses in theory of curriculum design and assessment, educational technology, culture and pedagogy, research, and a capstone project. The additional coursework allows the student to focus on a Post Baccalaureate Licensure Program – K-12 education concentration.

The program is designed using the cohort model with a group of participants completing all requirements in a two-year cycle. New cohorts may begin each year. Admission to the program follows the stated guidelines for graduate admission procedures outlined in the university catalog. Additionally, students must provide three letters of reference, proof of working with youth, and a statement of purpose.

Important information for this program:

- A bachelor's degree from an accredited college is required prior to beginning the program.

- A fully completed application including official transcripts is required prior to beginning the program.
- Pre-requisite leveling classes may be required prior to admittance to the program.
- It is recommended that students work closely with a faculty advisor when selecting courses and scheduling classes prior to registration.

All CMU masters-level graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, information literacy, and ethical reasoning. In addition to these campus-wide student learning outcomes, a graduate of this program will be able to:

1. Create and deliver oral and written communication based on sound educational theory and research for public education instruction. (Communication Fluency)
2. Evaluate and formulate education plans based on research, current issues, and public education stakeholders. (Critical Thinking and Specialized Knowledge)
3. Synthesize, evaluate, and refine information from an information base of scholarly resources. (Information Literacy)
4. Evaluate and articulate responses to moral, ethical, legal, and professional challenges from the perspective of a K-12 educator. (Ethical Reasoning)
5. Employ statistically valid processes to analyze assessment data to evaluate student learning with respect to district, state, and federal goals. (Quantitative Fluency)
6. Work individually and collaboratively on research-based change and innovation in Education. (Specialized Knowledge and Applied Learning)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional requirements apply to all CMU graduate-level degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Graduate certificates consist of a minimum of 5 credit hours. Master's degrees consist of a minimum of 30 credit hours. Doctoral degrees consist of a minimum of 60 credit hours.
- All credits in a graduate program must be minimally at the 500-level.
- At least fifty percent of the credit hours must be taken at CMU.
- Students must achieve a 3.00 cumulative GPA or higher in all CMU coursework.
- Students may not apply coursework with a grade lower than a "B" toward graduation requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Graduate Degree Requirements (p. 87)" in this catalog for a complete list of graduation requirements.
- All policies for graduate degrees are outlined in the Graduate Policies and Procedures Manual, Capstone Guidelines Manual, and Thesis and Dissertation Guidelines Manual, all of which are provided on the Graduate Studies website.

Program Specific Requirements

(42 semester hours, must earn a grade of "B" or better in each course.)

- It is recommended that students work closely with a faculty advisor when selecting courses and scheduling classes prior to registration.

Code	Title	Semester Credit Hours
Core Courses		
EDUC 500	Culture and Pedagogy	3
EDUC 501	Educational Technology	2
EDUC 502	Theory, Design & Assessment of Curriculum	3
EDUC 503	Introduction to Educational Research and Design	3
EDUC 600	Master's in Education Capstone	1
ITL - K-12 Physical Education Courses		
EDUC 521	Educational Foundations, Student Development, and Ethics	3
EDUC 562	Curriculum, Instruction, and Assessment	6
EDUC 580	Secondary Instructional Methods Across the Curriculum	3
EDUC 580F	Secondary Instructional Methods for Physical Education	3
EDUC 584	Secondary Literacy Methods Across the Curriculum	3
EDUC 586	Accommodating Diverse and Exceptional Needs	3
EDUC 599C	ITL 3: Directed Teaching, Physical Education	9
Total Semester Credit Hours		**42**

Suggested Course Plan

First Year		
Summer Semester		**Semester Credit Hours**
EDUC 521	Educational Foundations, Student Development, and Ethics	3
EDUC 562	Curriculum, Instruction, and Assessment	6
EDUC 586	Accommodating Diverse and Exceptional Needs	3
	Semester Credit Hours	**12**
Fall Semester		
EDUC 580	Secondary Instructional Methods Across the Curriculum	3
EDUC 580F	Secondary Instructional Methods for Physical Education	3

EDUC 584	Secondary Literacy Methods Across the Curriculum	3
	Semester Credit Hours	**9**
Spring Semester		
EDUC 599C	ITL 3: Directed Teaching, Physical Education	9
	Semester Credit Hours	**9**
Second Year		
Summer Semester		
EDUC 500	Culture and Pedagogy	3
EDUC 502	Theory, Design & Assessment of Curriculum	3
EDUC 503	Introduction to Educational Research and Design	3
	Semester Credit Hours	**9**
Fall Semester		
EDUC 501	Educational Technology	2
EDUC 600	Master's in Education Capstone	1
	Semester Credit Hours	**3**
	Total Semester Credit Hours	**42**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Education: Initial Teacher Licensure K-12 Physical Education (Graduate Certificate)

Award: Graduate Certificate
Program of Study: Initial Teacher Licensure K-12 Physical Education
Program Code: 7237

The Graduate Certificate in Education, ITL – K-12 Physical Education degree is designed as a dynamic program to meet the needs of education professionals as they seek initial state licensure. The degree is awarded after successful completion of 30 semester hours.

The program is designed using the cohort model with a group of participants completing all requirements in a one-year cycle. New cohorts may begin each year.

Admission to the program follows the stated guidelines for graduate admission procedures outlined in the university catalog. Additionally, students must provide three letters of reference, proof of working with youth, and a statement of purpose.

Graduate certificates will, at a minimum, align with either two Masters student learning outcomes or two Doctoral student learning outcomes, depending on certificate level. Certificates may choose to use more than two student learning outcomes, if desired. In addition to these campus-wide student learning outcomes, all recipients of this Graduate Certificate will be able to:

1. Demonstrate mastery of major area's content knowledge and pedagogical strategies through fieldwork with learners in professional settings. (Specialized Knowledge/Applied Learning)
2. Design and establish a safe, inclusive, and respectful learning environment for a diverse population of students. (Specialized Knowledge/Applied Learning)
3. Plan and deliver effective instruction to students, based on research-based pedagogical practices. (Communication Literacy/Information Literacy)
4. Collect and critically analyze student assessment data and use results to inform planning and instruction. (Critical Thinking/ Quantitative Fluency)
5. Demonstrate professionalism through ethical conduct, reflection, and leadership. (Personal and Social Responsibility)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional requirements apply to all CMU graduate-level degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Graduate certificates consist of a minimum of 5 credit hours. Master's degrees consist of a minimum of 30 credit hours. Doctoral degrees consist of a minimum of 60 credit hours.
- All credits in a graduate program must be minimally at the 500-level.
- At least fifty percent of the credit hours must be taken at CMU.
- Students must achieve a 3.00 cumulative GPA or higher in all CMU coursework.
- Students may not apply coursework with a grade lower than a "B" toward graduation requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Graduate Degree Requirements (p. 87)" in this catalog for a complete list of graduation requirements.
- All policies for graduate certificates are outlined in the Graduate Policies and Procedures Manual, which is provided on the Graduate Studies website.

Program Specific Requirements

(30 semester hours)

- It is recommended that students work closely with a faculty advisor when selecting courses and scheduling classes prior to registration.

Code	Title	Semester Credit Hours
EDUC 521	Educational Foundations, Student Development, and Ethics	3
EDUC 562	Curriculum, Instruction, and Assessment	6
EDUC 580	Secondary Instructional Methods Across the Curriculum	3
EDUC 580F	Secondary Instructional Methods for Physical Education	3
EDUC 584	Secondary Literacy Methods Across the Curriculum	3
EDUC 586	Accommodating Diverse and Exceptional Needs	3
EDUC 599C	ITL 3: Directed Teaching, Physical Education	9
Total Semester Credit Hours		**30**

Suggested Course Plan

It is recommended that students work closely with a faculty advisor when selecting courses and scheduling classes prior to registration.

First Year		
Summer Semester		**Semester Credit Hours**
EDUC 521	Educational Foundations, Student Development, and Ethics	3
EDUC 562	Curriculum, Instruction, and Assessment	6
EDUC 586	Accommodating Diverse and Exceptional Needs	3
	Semester Credit Hours	**12**
Fall Semester		
EDUC 580	Secondary Instructional Methods Across the Curriculum	3
EDUC 580F	Secondary Instructional Methods for Physical Education	3
EDUC 584	Secondary Literacy Methods Across the Curriculum	3
	Semester Credit Hours	**9**
Spring Semester		
EDUC 599C	ITL 3: Directed Teaching, Physical Education	9
	Semester Credit Hours	**9**
	Total Semester Credit Hours	**30**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Education: Teaching and Leadership (EDTL) (MAEd)

Degree: Master of Arts in Education
Program of Study: Teaching and Leadership (EDTL)
Program Code: 8217

The Master of Arts in Education is designed as a dynamic program to meet the needs of education professionals as they gain additional expertise. The degree is awarded after successful completion of 30 semester hours for the Teaching and Leadership concentration. The program is designed to provide the student with 12 hours of Master's foundation courses in theory of curriculum design and assessment, educational technology, culture and pedagogy, research, and a capstone project. The subsequent courses focus on Teaching and Leadership skills and competencies.

The program is guided and adheres to national standards researched and created by the Teacher Leadership Exploratory Consortium. Admission to the program follows the stated guidelines for graduate admission procedures as outlined in the university catalog. Additionally, students must provide two letters of reference from the profession and a statement of purpose. The degree is granted after completion of all courses with a grade of B or better.

Important information for this program:

- A bachelor's degree from an accredited college is required, prior to beginning the program.
- A fully completed application including official transcripts is required prior to beginning the program.
- It is recommended that students work closely with a faculty advisor when selecting courses and scheduling classes prior to registration.

All CMU masters-level graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, information literacy, and ethical reasoning. In addition to these campus-wide student learning outcomes, a graduate of this program will be able to:

1. Create and deliver oral and written communication based on sound educational theory and research for instructional leadership. (Communication Fluency)
2. Evaluate and formulate education plans based on research, current issues, and public education stakeholders. (Critical Thinking and Specialized Knowledge)
3. Synthesize, evaluate, and refine information from an information base of scholarly resources. (Information Literacy)
4. Evaluate and articulate responses to moral, ethical, legal, and professional challenges from the perspective of a teacher leader. (Ethical Reasoning)
5. Employ statistically valid processes to analyze assessment data to evaluate student learning with respect to district, state, and federal goals. (Quantitative Fluency)
6. Work individually and collaboratively on research-based change and innovation in diverse classrooms, addressing differentiation for public education students. (Specialized Knowledge and Applied Learning)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Graduate Degree Requirements

The following institutional requirements apply to all CMU graduate-level degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Graduate certificates consist of a minimum of 5 credit hours. Master's degrees consist of a minimum of 30 credit hours. Doctoral degrees consist of a minimum of 60 credit hours.
- All credits in a graduate program must be minimally at the 500-level.
- At least fifty percent of the credit hours must be taken at CMU.
- Students must achieve a 3.00 cumulative GPA or higher in all CMU coursework.
- Students may not apply coursework with a grade lower than a "B" toward graduation requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Graduate Degree Requirements (p. 87)" in this catalog for a complete list of graduation requirements.
- All policies for graduate degrees are outlined in the Graduate Policies and Procedures Manual, Capstone Guidelines Manual, and Thesis and Dissertation Guidelines Manual, all of which are provided on the Graduate Studies website.

Program Specific Requirements

(30 semester hours, must earn a grade of "B" or better in each course.)

- It is recommended that students work closely with a faculty advisor when selecting courses and scheduling classes prior to registration.

Code	Title	Semester Credit Hours
Core Courses		
EDUC 500	Culture and Pedagogy	3
EDUC 501	Educational Technology	2
EDUC 502	Theory, Design & Assessment of Curriculum	3

EDUC 503	Introduction to Educational Research and Design	3
EDUC 600	Master's in Education Capstone	1
Teaching and Leadership Courses		
EDLD 506	Leadership and Organizational Change	3
EDUC 586	Accommodating Diverse and Exceptional Needs	3
EDLD 515	Dynamic School Leadership in a Democratic Society: Introduction to School Administration	3
EDLD 542	Instructional Supervision and Management/HR	3
EDLD 540	School Improvement and Accountability	3
EDTL 513	Information Based Educational Practice and Statistics	3
Total Semester Credit Hours		**30**

Suggested Course Plan

First Year		
Summer Semester		**Semester Credit Hours**
EDUC 502	Theory, Design & Assessment of Curriculum	3
EDLD 515	Dynamic School Leadership in a Democratic Society: Introduction to School Administration	3
EDUC 503	Introduction to Educational Research and Design	3
	Semester Credit Hours	**9**
Fall Semester		
EDLD 542	Instructional Supervision and Management/HR	3
EDLD 540	School Improvement and Accountability	3
EDUC 501	Educational Technology	2
	Semester Credit Hours	**8**
Spring Semester		
EDTL 513	Information Based Educational Practice and Statistics	3
EDUC 600	Master's in Education Capstone	1
	Semester Credit Hours	**4**
Second Year		
Summer Semester		
EDUC 500	Culture and Pedagogy	3
EDUC 586	Accommodating Diverse and Exceptional Needs	3
EDLD 506	Leadership and Organizational Change	3
	Semester Credit Hours	**9**
	Total Semester Credit Hours	**30**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Education: Rhetoric and Literary Studies (MAEd)

Award: Master of Arts in Education
Program of Study: Rhetoric and Literary Studies
Program Code: 8221

The Master of Arts in Education, Rhetoric and Literary Studies program is a dynamic program designed to meet the needs of education professionals who desire to teach lower-division college English courses in high school or higher education but who don't have the necessary graduate credits to do so. The degree is awarded after successful completion of 33 credit hours in graduate coursework in English and education, and the program is designed to provide students with more advanced knowledge in education research, curriculum, instruction, culture and pedagogy, educational technology, composition and rhetoric, literary theory, linguistics, creative writing, and American and British literature.

Important information for this program:

- A bachelor's degree from an accredited college is required, prior to beginning the program.
- A fully completed application including official transcripts is required prior to beginning the program.
- Acceptance into the Rhetoric and Literary Studies graduate certificate program.
- 33 semester hours and capstone presentation are required for the Master of Arts in Education Degree in Rhetoric and Literary Studies.
- It is recommended that students work closely with a faculty advisor when selecting courses and scheduling classes prior to registration.

As a component of this program, students will earn an Graduate Certificate in Rhetoric and Literary Studies prior to beginning coursework specific to the Master of Arts in Education in Rhetoric and Literary Studies degree. Upon completion of the Graduate Certificate in Rhetoric and Literary Studies, graduates will be able to:

1. Contribute to scholarly advancement in composition/rhetoric, linguistics, creative writing and literary studies by completing projects individually and collaboratively. (Specialized Knowledge/Applied Learning)
2. Generate oral and written communication based on sound theories of composition/rhetoric, linguistics, creative writing and literary studies. (Communication Fluency)
3. Formulate hypotheses related to research problems, issues, and concepts in the fields of composition/rhetoric, linguistics, creative writing and literary studies. (Critical Thinking)
4. Synthesize information from a base of scholarly resources related to composition/rhetoric, linguistics, creative writing and literary studies. (Information Literacy)
5. Evaluate moral, ethical, legal, or professional challenges in the disciplines of composition/rhetoric, linguistics, creative writing and literary studies. (Ethical Reasoning)

All CMU masters-level graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, information literacy, and ethical reasoning. In addition to these campus-wide student learning outcomes, a graduate of this program will be able to:

1. Create and deliver oral and written communication based on sound educational theory and research for public education. (Communication Fluency)
2. Evaluate and formulate education plans based on research, current issues, and public education stakeholders. (Critical Thinking and Specialized Knowledge)
3. Synthesize, evaluate, and refine information from an information base of scholarly resources. (Information Literacy)
4. Evaluate and articulate responses to moral, ethical, legal, and professional challenges for instruction. (Ethical Reasoning)
5. Employ statistically valid processes to analyze assessment data to evaluate student learning with respect to district, state, and federal goals. (Quantitative Fluency)
6. Work individually and collaboratively on research based change and innovation in education. (Specialized Knowledge and Applied Learning).

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Graduate Degree Requirements

The following institutional requirements apply to all CMU graduate-level degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Graduate certificates consist of a minimum of 5 credit hours. Master's degrees consist of a minimum of 30 credit hours. Doctoral degrees consist of a minimum of 60 credit hours.
- All credits in a graduate program must be minimally at the 500-level.
- At least fifty percent of the credit hours must be taken at CMU.
- Students must achieve a 3.00 cumulative GPA or higher in all CMU coursework.
- Students may not apply coursework with a grade lower than a "B" toward graduation requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Graduate Degree Requirements (p. 87)" in this catalog for a complete list of graduation requirements.
- All policies for graduate degrees are outlined in the Graduate Policies and Procedures Manual, Capstone Guidelines Manual, and Thesis and Dissertation Guidelines Manual, all of which are provided on the Graduate Studies website.

Program Specific Requirements

(33 semester hours, must pass all courses with a grade of "B" or better.)

- 33 semester hours *and* capstone presentation are required for the Master of Arts in Education Degree in Rhetoric and Literary Studies.
- It is recommended that students work closely with a faculty advisor when selecting courses and scheduling classes prior to registration.

Code	Title	Semester Credit Hours
Required Courses		
ENGL 521	Seminar in Literary Theory	3
ENGL 543	Language Systems and Linguistic Diversity	3
ENGL 550	Studies in Creative Writing	3
ENGL 554	Topics in British and Commonwealth Literature	3
ENGL 561	Topics in American Literature	3
ENGL 586	Seminar in Rhetoric and Composition	3
Master of Arts in Education Core Courses		
EDUC 500	Culture and Pedagogy	3
EDUC 501	Educational Technology	2
EDUC 502	Theory, Design & Assessment of Curriculum	3
EDUC 503	Introduction to Educational Research and Design	3
EDTL 513	Information Based Educational Practice and Statistics	3
EDUC 600	Master's in Education Capstone	1
Total Semester Credit Hours		**33**

Suggested Course Plan

First Year		
Summer Semester		**Semester Credit Hours**
EDUC 502	Theory, Design & Assessment of Curriculum	3
ENGL 586	Seminar in Rhetoric and Composition	3
	Semester Credit Hours	**6**
Fall Semester		
EDUC 501	Educational Technology	2
ENGL 521	Seminar in Literary Theory	3
	Semester Credit Hours	**5**
Spring Semester		
EDTL 513	Information Based Educational Practice and Statistics	3
ENGL 554	Topics in British and Commonwealth Literature	3
	Semester Credit Hours	**6**
Second Year		
Summer Semester		
EDUC 500	Culture and Pedagogy	3
EDUC 503	Introduction to Educational Research and Design	3
ENGL 550	Studies in Creative Writing	3
	Semester Credit Hours	**9**
Fall Semester		
ENGL 543	Language Systems and Linguistic Diversity	3
EDUC 600	Master's in Education Capstone	1
	Semester Credit Hours	**4**
Spring Semester		
ENGL 561	Topics in American Literature	3
	Semester Credit Hours	**3**
	Total Semester Credit Hours	**33**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Education: Social Science (MAEd)

Award: Master of Arts in Education
Program of Study: Social Sciences
Program Code: 8271

This program is no longer accepting new students.

The Master of Arts in Education, Social Sciences is a 33 credit hour program. This program is designed for high school teachers who need certification to teach history and political science courses for lower-division college level credit.

Important information for this program:

- A bachelor's degree from an accredited college is required, prior to beginning the program.
- A fully completed application including official transcripts is required prior to beginning the program.
- Acceptance into the Social Sciences graduate certificate program.
- 33 semester hours and capstone presentation are required for the Master of Arts in Education Degree in Social Sciences.
- It is recommended that students work closely with a faculty advisor when selecting courses and scheduling classes prior to registration.

As a component of this program, students will earn an Graduate Certificate in Social Science prior to beginning coursework specific to the Master of Arts in Education in Social Science degree. Upon completion of the Graduate Certificate in Social Science, graduates will be able to:

1. Contribute to scholarly advancement in the chosen field by completing projects individually and collaboratively (specialized knowledge/applied learning);
2. Create oral and written arguments or explanations, well-grounded in discipline-specific theories and methods, for specified audiences (communication fluency);
3. Formulate and evaluate hypotheses as related to research problems, issues, concepts, and various perspectives (critical thinking);
4. Synthesize, evaluate, or refine the information base of various scholarly sources (information literacy); and
5. Evaluate moral, ethical, legal, or professional challenges within the discipline (ethical reasoning).

All CMU masters-level graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, information literacy, and ethical reasoning. In addition to these campus-wide student learning outcomes, a graduate of this program will be able to:

1. Create and deliver oral and written communication based on sound educational theory and research for public education. (Communication Fluency)
2. Evaluate and formulate education plans based on research, current issues, and public education stakeholders. (Critical Thinking and Specialized Knowledge)
3. Synthesize, evaluate, and refine information from an information base of scholarly resources. (Information Literacy)
4. Evaluate and articulate responses to moral, ethical, legal, and professional challenges for instruction. (Ethical Reasoning)
5. Employ statistically valid processes to analyze assessment data to evaluate student learning with respect to district, state, and federal goals. (Quantitative Fluency)
6. Work individually and collaboratively on research based change and innovation in education. (Specialized Knowledge and Applied Learning).

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Graduate Degree Requirements

The following institutional requirements apply to all CMU graduate-level degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Graduate certificates consist of a minimum of 5 credit hours. Master's degrees consist of a minimum of 30 credit hours. Doctoral degrees consist of a minimum of 60 credit hours.
- All credits in a graduate program must be minimally at the 500-level.
- At least fifty percent of the credit hours must be taken at CMU.
- Students must achieve a 3.00 cumulative GPA or higher in all CMU coursework.
- Students may not apply coursework with a grade lower than a "B" toward graduation requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Graduate Degree Requirements (p. 87)" in this catalog for a complete list of graduation requirements.
- All policies for graduate degrees are outlined in the Graduate Policies and Procedures Manual, Capstone Guidelines Manual, and Thesis and Dissertation Guidelines Manual, all of which are provided on the Graduate Studies website.

Program Specific Requirements

(33 semester hours, must pass all courses with a grade of "B" or better)

- 33 semester hours *and* capstone presentation are required for the Master of Arts in Education Degree in Social Sciences.
- It is recommended that students work closely with a faculty advisor when selecting courses and scheduling classes prior to registration.

Code	Title	Semester Credit Hours
Required Courses		
HIST 501	Early American History: Foundation - Civil War	3
HIST 502	Late American History: Civil War - Modern U.S.	3
HIST 510	Early European History: Ancient - Reformation	3
HIST 511	Modern European History: Reformation - 20th Century	3
POLS 501	Theories of Political Science	3
POLS 505	American Government	3
Master of Arts in Education Core Courses		
EDUC 500	Culture and Pedagogy	3
EDUC 501	Educational Technology	2
EDUC 502	Theory, Design & Assessment of Curriculum	3
EDUC 503	Introduction to Educational Research and Design	3
EDTL 513	Information Based Educational Practice and Statistics	3
EDUC 600	Master's in Education Capstone	1
Total Semester Credit Hours		**33**

Suggested Course Plan

First Year		
Summer Semester		**Semester Credit Hours**
EDUC 502	Theory, Design & Assessment of Curriculum	3
HIST 501	Early American History: Foundation - Civil War	3
	Semester Credit Hours	**6**
Fall Semester		
EDUC 501	Educational Technology	2
HIST 502	Late American History: Civil War - Modern U.S.	3
	Semester Credit Hours	**5**
Spring Semester		
EDTL 513	Information Based Educational Practice and Statistics	3
HIST 510	Early European History: Ancient - Reformation	3
	Semester Credit Hours	**6**
Second Year		
Summer Semester		
EDUC 500	Culture and Pedagogy	3
EDUC 503	Introduction to Educational Research and Design	3
HIST 511	Modern European History: Reformation - 20th Century	3
	Semester Credit Hours	**9**
Fall Semester		
EDUC 600	Master's in Education Capstone	1

POLS 501	Theories of Political Science	3
	Semester Credit Hours	**4**
Spring Semester		
POLS 505	American Government	3
	Semester Credit Hours	**3**
	Total Semester Credit Hours	**33**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Applied Mathematics (Graduate Certificate)

Award: Graduate Certificate
Program of Study: Applied Mathematics
Program Code: 7441

This program is no longer accepting new students.

This program leads to a Graduate Certificate in Applied Mathematics with an option to complete a Master of Arts degree in Education. This 18-credit hour program is designed to be completed in a two-year cycle, and serves several purposes:

1. The program is intended to provide licensed secondary mathematics teachers the credentials required by the Higher Learning Commission to teach concurrent college or university mathematics courses.
2. The program enables professionals interested in enhancing their knowledge of applied mathematics an opportunity to take individual courses and/or earn a graduate certificate in the subject area.
3. The program provides an opportunity for post-graduates to take courses that serve as a bridge between a baccalaureate degree and a master's degree in mathematics or related field. In this case the transferability of the courses towards a specific master's degree (other than the Master of Arts in Education) is not guaranteed and would depend on the individual masters programs.

Important information about this program

- A bachelor's degree from an accredited college is required, preferably in mathematics, mathematics education, or an area with a significant mathematics requirement.
- It is strongly recommended that applicants have completed 18-24 hours of undergraduate mathematics courses, including at least two semesters of calculus, a course in probability and statistics, and a course that includes writing mathematical proofs. Each applicant should address how their background relates to these recommendations in their letter of intent (see below), and discuss any particular strengths if they do not meet these recommendations.
- A fully completed application including official transcripts is required prior to beginning the program, two letters of recommendation (one page in length) and a letter of intent that provides information about the student's background, interests, and aspirations, and how they relate to the Graduate Certificate in Applied Mathematics.
- For additional information on applicable polices, please refer to the Graduate Policies and Procedures Manual.

Graduate certificates will, at a minimum, align with either two Masters student learning outcomes or two Doctoral student learning outcomes, depending on certificate level. Certificates may choose to use more than two student learning outcomes, if desired. In addition to these campus-wide student learning outcomes, all recipients of this Graduate Certificate will be able to:

1. Employ mathematical, computational and/or statistical methods to address topics in applied mathematics (specialized knowledge/ applied learning, quantitative fluency);
2. Create oral and written arguments, well-grounded in theories and methods of applied mathematics (communication fluency, quantitative fluency);
3. Formulate and evaluate hypotheses related to applied problems, issues, concepts, and perspectives (critical thinking, quantitative fluency).

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print

Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Graduate Degree Requirements

The following institutional requirements apply to all CMU graduate-level degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Graduate certificates consist of a minimum of 5 credit hours. Master's degrees consist of a minimum of 30 credit hours. Doctoral degrees consist of a minimum of 60 credit hours.
- All credits in a graduate program must be minimally at the 500-level.
- At least fifty percent of the credit hours must be taken at CMU.
- Students must achieve a 3.00 cumulative GPA or higher in all CMU coursework.
- Students may not apply coursework with a grade lower than a "B" toward graduation requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Graduate Degree Requirements (p. 87)" in this catalog for a complete list of graduation requirements.
- All policies for graduate certificates are outlined in the Graduate Policies and Procedures Manual, which is provided on the Graduate Studies website.

Program Specific Requirements

(18 semester hours, must pass all courses with a grade of "B" or better.)

Code	Title	Semester Credit Hours
Required Courses		
MATH 500	Introduction to Graduate Studies in Applied Mathematics	3
MATH 510	Applied Probability and Statistics	3
MATH 520	Applied Numerical Methods	3
Restricted Elective Courses		
Select 9 credits from the following courses:		9
MATH 530	Applied Mathematical Modeling	
MATH 540	Applied Audio and Image Processing	
MATH 550	Mathematical Logic and Foundations in Mathematics	
MATH 560	Applied Number Theory	
MATH 570	Applied Cryptography	
MATH 596	Topics	
Total Semester Credit Hours		**18**

Suggested Course Plan

First Year		
Summer Semester		**Semester Credit Hours**
MATH 500	Introduction to Graduate Studies in Applied Mathematics	3
	Semester Credit Hours	**3**
Fall Semester		
MATH 510	Applied Probability and Statistics	3
	Semester Credit Hours	**3**
Spring Semester		
MATH 520	Applied Numerical Methods	3
	Semester Credit Hours	**3**
Second Year		
Summer Semester		
Restricted Elective		3
	Semester Credit Hours	**3**
Fall Semester		
Restricted Elective		3
	Semester Credit Hours	**3**
Spring Semester		
Restricted Elective		3
	Semester Credit Hours	**3**
	Total Semester Credit Hours	**18**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Education: Educational Leadership (EDLD) (Graduate Certificate)

Award: Graduate Certificate in Education
Program of Study: Educational Leadership (EDLD)
Program Code: 7202

The Graduate Certificate in Educational Leadership for Principal Licensure is awarded after successful completion of 24 semester hours focusing on Educational Leadership skills and competencies that adhere to the Colorado Professional Standards for Principals. This certificate program prepares candidates, who already hold a Master's Degree, to take the State Required License Exam and apply for a Colorado Principal License.

Students must hold a valid teaching license to be considered for the certificate program. The certificate is granted after completion of all courses with a grade of B or better and a ranking of proficient or better on all elements of a comprehensive exam.

Admission to the program follows the stated guidelines for graduate admission procedures outlined in the university catalog. Additionally, students must provide three letters of reference and a statement of purpose.

Important information for this program:

- A master's degree from an accredited college is required, prior to beginning the program.
- A fully completed application including official transcripts is required prior to beginning the program.
- Applicants must hold a valid Professional Colorado Educator License.
- It is recommended that students work closely with a faculty advisor when selecting courses and scheduling classes prior to registration.

Graduate certificates will, at a minimum, align with either two Masters student learning outcomes or two Doctoral student learning outcomes, depending on certificate level. Certificates may choose to use more than two student learning outcomes, if desired. In addition to these campus-wide student learning outcomes, all recipients of this Graduate Certificate will be able to:

1. Create and deliver oral and written communication based on sound educational theory and research for public education leadership. (Communication Fluency)
2. Evaluate and formulate education plans based on research, current issues, and public education stakeholders. (Critical Thinking and Specialized Knowledge)
3. Synthesize, evaluate, and refine information from an information base of scholarly resources. (Information Literacy)
4. Evaluate and articulate responses to moral, ethical, legal, and professional challenges from the perspective of an educational leader. (Ethical Reasoning)
5. Employ statistically valid processes to analyze assessment data to evaluate student learning with respect to district, state, and federal goals. (Quantitative Fluency)
6. Work individually and collaboratively on research-based change and innovation in Education. (Specialized Knowledge and Applied Learning)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Graduate Degree Requirements

The following institutional requirements apply to all CMU graduate-level degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Graduate certificates consist of a minimum of 5 credit hours. Master's degrees consist of a minimum of 30 credit hours. Doctoral degrees consist of a minimum of 60 credit hours.
- All credits in a graduate program must be minimally at the 500-level.
- At least fifty percent of the credit hours must be taken at CMU.
- Students must achieve a 3.00 cumulative GPA or higher in all CMU coursework.
- Students may not apply coursework with a grade lower than a "B" toward graduation requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Graduate Degree Requirements (p. 87)" in this catalog for a complete list of graduation requirements.
- All policies for graduate certificates are outlined in the Graduate Policies and Procedures Manual, which is provided on the Graduate Studies website.

Program Specific Requirements

(24 semester hours, must earn a grade of "B" or better in each course)

- It is recommended that students work closely with a faculty advisor when selecting courses and scheduling classes prior to registration.

Code	Title	Semester Credit Hours
EDLD 506	Leadership and Organizational Change	3
EDLD 515	Dynamic School Leadership in a Democratic Society: Introduction to School Administration	3
EDLD 520A	Principalship I	2
EDLD 520B	Principalship II	2
EDLD 532	School Finance and Legal Aspects of School Administration	3
EDLD 535	Internship in Educational Leadership I	1
EDLD 540	School Improvement and Accountability	3
EDLD 542	Instructional Supervision and Management/HR	3
EDLD 545	Internship in Educational Leadership II	1
EDTL 513	Information Based Educational Practice and Statistics	3
Comprehensive Exam [1]		
Total Semester Credit Hours		**24**

[1] Educational Leadership students are required to achieve proficiency on all elements of a comprehensive exam taken the final semester of the program. The written exam evaluates the critical thinking and problem solving skills of candidates in relation to the Colorado Professional Standards for Principals.

Suggested Course Plan

First Year		
Summer Semester		**Semester Credit Hours**
EDLD 515	Dynamic School Leadership in a Democratic Society: Introduction to School Administration	3
EDLD 520A	Principalship I	2
	Semester Credit Hours	**5**
Fall Semester		
EDLD 535	Internship in Educational Leadership I	1
EDLD 540	School Improvement and Accountability	3
EDLD 542	Instructional Supervision and Management/HR	3
	Semester Credit Hours	**7**
Spring Semester		
EDTL 513	Information Based Educational Practice and Statistics	3
EDLD 532	School Finance and Legal Aspects of School Administration	3
EDLD 545	Internship in Educational Leadership II	1
	Semester Credit Hours	**7**
Second Year		
Summer Semester		
EDLD 520B	Principalship II	2
EDLD 506	Leadership and Organizational Change	3
	Semester Credit Hours	**5**
	Total Semester Credit Hours	**24**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Education: Exceptional Learner/ Special Education (EDSE) (Graduate Certificate)

Award: Graduate Certificate in Education
Program of Study: Exceptional Learner/Special Education (EDSE)
Program Code: 7203

This graduate certificate is designed for education professionals to earn an endorsement to work with K-12 students with exceptionalities in accordance with the Council for Exceptional Children (CEC) standards.

Admission to the program follows the stated guidelines for graduate admission procedures outlined in the university catalog. Additionally, students must provide three letters of reference and a statement of purpose.

This certificate program prepares candidates, who must already hold a Master's Degree, to take the PRAXIS exam and apply for a Colorado Department of Education Special Education Generalist Licensure.

Students must hold a valid teaching license to be considered for the certificate program. The certificate is granted after completion of all courses with a grade of B or better.

Important information about this program:

- Applicants must hold a valid Professional Colorado Educator License.
- It is recommended that students work closely with a faculty advisor when selecting courses and scheduling classes prior to registration.

Graduate certificates will, at a minimum, align with either two Masters student learning outcomes or two Doctoral student learning outcomes, depending on certificate level. Certificates may choose to use more than two student learning outcomes, if desired. In addition to these campus-wide student learning outcomes, all recipients of this Graduate Certificate will be able to:

1. Create and deliver oral and written communication based on sound educational theory and research in guiding instruction for learners who are exceptional. (Communication Fluency)
2. Evaluate and formulate education plans based on research and legal requirements outlined in federal legislation. (Critical Thinking and Specialized Knowledge)
3. Synthesize, evaluate, and refine information from an information base of scholarly resources. (Information Literacy)
4. Evaluate and articulate responses to moral, ethical, legal, and professional challenges from the perspective of an advocate for learners who are exceptional. (Ethical Reasoning)
5. Employ statistically valid processes to analyze assessment data to evaluate student learning with respect to district, state, and federal goals. (Qualitative Fluency)
6. Work individually and collaboratively on research-based change and innovation in Education. (Specialized Knowledge and Applied Learning)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Graduate Degree Requirements

The following institutional requirements apply to all CMU graduate-level degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Graduate certificates consist of a minimum of 5 credit hours. Master's degrees consist of a minimum of 30 credit hours. Doctoral degrees consist of a minimum of 60 credit hours.
- All credits in a graduate program must be minimally at the 500-level.
- At least fifty percent of the credit hours must be taken at CMU.
- Students must achieve a 3.00 cumulative GPA or higher in all CMU coursework.
- Students may not apply coursework with a grade lower than a "B" toward graduation requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Graduate Degree Requirements (p. 87)" in this catalog for a complete list of graduation requirements.
- All policies for graduate certificates are outlined in the Graduate Policies and Procedures Manual, which is provided on the Graduate Studies website.

Program Specific Requirements

(24 semester hours, must earn a grade of "B" or better in each course.)

- It is recommended that students work closely with a faculty advisor when selecting courses and scheduling classes prior to registration.

Code	Title	Semester Credit Hours
EDSE 500	Foundation of Special Education Including Law	3
EDSE 501	Instructional Strategies in Special Education	3
EDSE 502	Behavioral Interventions for the Learner with Special Needs	3
EDSE 503	Methods of Teaching Students with Mild Disabilities Reading and Math	3
EDSE 506	Educating Students with Low Incidence Disabilities in Inclusive Environments	3
EDSE 510	The Learner Who is Twice Exceptional, Including Gifted and Talented	3
EDSE 515	Internship K-6 Elementary Practicum in Special Education	3
EDSE 520	Internship 6-12 Secondary Practicum in Special Education	3
Total Semester Credit Hours		**24**

Suggested Course Plan

First Year

Summer Semester		Semester Credit Hours
EDSE 500	Foundation of Special Education Including Law	3
	Semester Credit Hours	**3**
Fall Semester		
EDSE 501	Instructional Strategies in Special Education	3
EDSE 515	Internship K-6 Elementary Practicum in Special Education	3
	Semester Credit Hours	**6**
Spring Semester		
EDSE 502	Behavioral Interventions for the Learner with Special Needs	3
EDSE 520	Internship 6-12 Secondary Practicum in Special Education	3
	Semester Credit Hours	**6**

Second Year		
Summer Semester		
EDSE 510	The Learner Who is Twice Exceptional, Including Gifted and Talented	3
	Semester Credit Hours	**3**
Fall Semester		
EDSE 503	Methods of Teaching Students with Mild Disabilities Reading and Math	3
	Semester Credit Hours	**3**
Spring Semester		
EDSE 506	Educating Students with Low Incidence Disabilities in Inclusive Environments	3
	Semester Credit Hours	**3**
	Total Semester Credit Hours	**24**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Education: Initial Teacher Licensure - Elementary (Graduate Certificate)

Award: Graduate Certificate in Education
Program of Study: Initial Teacher Licensure - Elementary
Program Code: 7205

The Graduate Certificate in Education, ITL - Elementary is designed as a dynamic program to meet the needs of education professionals as they seek initial state licensure. The degree is awarded after successful completion of 30 semester hours.

The program is designed using the cohort model with a group of participants completing all requirements in a one-year cycle. New cohorts may begin each year.

Admission to the program follows the stated guidelines for graduate admission procedures outlined in the university catalog. Additionally, students must provide three letters of reference, proof of working with youth, and a statement of purpose.

Graduate certificates will, at a minimum, align with either two Masters student learning outcomes or two Doctoral student learning outcomes, depending on certificate level. Certificates may choose to use more than two student learning outcomes, if desired. In addition to these campus-wide student learning outcomes, all recipients of this Graduate Certificate will be able to:

1. Demonstrate mastery of major area's content knowledge and pedagogical strategies through fieldwork with learners in professional settings. (Specialized Knowledge/Applied Learning)
2. Design and establish a safe, inclusive, and respectful learning environment for a diverse population of students. (Specialized Knowledge/Applied Learning)
3. Plan and deliver effective instruction to students, based on research-based pedagogical practices. (Communication Literacy/Information Literacy)
4. Collect and critically analyze student assessment data and use results to inform planning and instruction. (Critical Thinking/Quantitative Fluency)
5. Demonstrate professionalism through ethical conduct, reflection, and leadership. (Personal and Social Responsibility)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Graduate Degree Requirements

The following institutional requirements apply to all CMU graduate-level degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Graduate certificates consist of a minimum of 5 credit hours. Master's degrees consist of a minimum of 30 credit hours. Doctoral degrees consist of a minimum of 60 credit hours.
- All credits in a graduate program must be minimally at the 500-level.
- At least fifty percent of the credit hours must be taken at CMU.
- Students must achieve a 3.00 cumulative GPA or higher in all CMU coursework.
- Students may not apply coursework with a grade lower than a "B" toward graduation requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Graduate Degree Requirements (p. 87)" in this catalog for a complete list of graduation requirements.
- All policies for graduate certificates are outlined in the Graduate Policies and Procedures Manual, which is provided on the Graduate Studies website.

Program Specific Requirements

(30 semester hours, must earn a grade of "B" or better in each course.)

- It is recommended that students work closely with a faculty advisor when selecting courses and scheduling classes prior to registration.

Code	Title	Semester Credit Hours
EDUC 521	Educational Foundations, Student Development, and Ethics	3
EDUC 562	Curriculum, Instruction, and Assessment	6
EDUC 578	Elementary Reading and Language Arts Theory and Methodology K-6	3
EDUC 585	Elementary Integrated Science, Social Studies, and Art Theory and Methodology K-6	3
EDUC 586	Accommodating Diverse and Exceptional Needs	3
EDUC 588	Elementary Mathematics Theory and Methodology K-6	3
EDUC 599A	ITL 3: Directed Teaching: Elementary Education	9
Total Semester Credit Hours		**30**

Suggested Course Plan

First Year		
Summer Semester		**Semester Credit Hours**
EDUC 521	Educational Foundations, Student Development, and Ethics	3
EDUC 562	Curriculum, Instruction, and Assessment	6
EDUC 586	Accommodating Diverse and Exceptional Needs	3
	Semester Credit Hours	**12**
Fall Semester		
EDUC 578	Elementary Reading and Language Arts Theory and Methodology K-6	3
EDUC 585	Elementary Integrated Science, Social Studies, and Art Theory and Methodology K-6	3
EDUC 588	Elementary Mathematics Theory and Methodology K-6	3
	Semester Credit Hours	**9**
Spring Semester		
EDUC 599A	ITL 3: Directed Teaching: Elementary Education	9
	Semester Credit Hours	**9**
	Total Semester Credit Hours	**30**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

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Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Education: Initial Teacher Licensure - Secondary (Graduate Certificate)

Award: Graduate Certificate in Education
Program of Study: Initial Teacher Licensure - Secondary
Program Code: 7206, 7207, 7208, 7209, 7210

The Graduate Certificate in Education, ITL - Secondary degree is designed as a dynamic program to meet the needs of education professionals as they seek initial state licensure. The degree is awarded after successful completion of 30 semester hours.

The program is designed using the cohort model with a group of participants completing all requirements in a one-year cycle. New cohorts may begin each year.

Admission to the program follows the stated guidelines for graduate admission procedures outlined in the university catalog. Additionally, students must provide three letters of reference, proof of working with youth, and a statement of purpose.

Graduate certificates will, at a minimum, align with either two Masters student learning outcomes or two Doctoral student learning outcomes, depending on certificate level. Certificates may choose to use more than two student learning outcomes, if desired. In addition to these campus-wide student learning outcomes, all recipients of this Graduate Certificate will be able to:

1. Demonstrate mastery of major area's content knowledge and pedagogical strategies through fieldwork with learners in professional settings. (Specialized Knowledge/Applied Learning)
2. Design and establish a safe, inclusive, and respectful learning environment for a diverse population of students. (Specialized Knowledge/Applied Learning)
3. Plan and deliver effective instruction to students, based on research-based pedagogical practices. (Communication Literacy/Information Literacy)
4. Collect and critically analyze student assessment data and use results to inform planning and instruction. (Critical Thinking/Quantitative Fluency)
5. Demonstrate professionalism through ethical conduct, reflection, and leadership. (Personal and Social Responsibility)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Graduate Degree Requirements

The following institutional requirements apply to all CMU graduate-level degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Graduate certificates consist of a minimum of 5 credit hours. Master's degrees consist of a minimum of 30 credit hours. Doctoral degrees consist of a minimum of 60 credit hours.
- All credits in a graduate program must be minimally at the 500-level.
- At least fifty percent of the credit hours must be taken at CMU.
- Students must achieve a 3.00 cumulative GPA or higher in all CMU coursework.
- Students may not apply coursework with a grade lower than a "B" toward graduation requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Graduate Degree Requirements (p. 87)" in this catalog for a complete list of graduation requirements.
- All policies for graduate certificates are outlined in the Graduate Policies and Procedures Manual, which is provided on the Graduate Studies website.

Program Specific Requirements

(30 semester hours, must earn a grade of "B" or better in each course.)

- It is recommended that students work closely with a faculty advisor when selecting courses and scheduling classes prior to registration.

Code	Title	Semester Credit Hours
EDUC 521	Educational Foundations, Student Development, and Ethics	3
EDUC 562	Curriculum, Instruction, and Assessment	6
EDUC 586	Accommodating Diverse and Exceptional Needs	3
EDUC 570	Classroom Management	1
Complete one of the following, based on content area concentration:		2
EDUC 580A	Secondary Instructional Methods for English Language Arts	
EDUC 580B	Secondary Instructional Methods for Social Studies	
EDUC 580C	Secondary Instructional Methods for Mathematics	
EDUC 580D	Secondary Instructional Methods for Science	
EDUC 580E	Secondary Instructional Methods for Spanish	
EDUC 584	Secondary Literacy Methods Across the Curriculum	3
EDUC 580	Secondary Instructional Methods Across the Curriculum	3

EDUC 599B	ITL 3: Directed Teaching: Secondary Education	9
Total Semester Credit Hours		**30**

Suggested Course Plan

First Year

Summer Semester		**Semester Credit Hours**
EDUC 521	Educational Foundations, Student Development, and Ethics	3
EDUC 562	Curriculum, Instruction, and Assessment	6
EDUC 586	Accommodating Diverse and Exceptional Needs	3
	Semester Credit Hours	**12**
Fall Semester		
EDUC 570	Classroom Management	1
EDUC 580	Secondary Instructional Methods Across the Curriculum	3
EDUC 584	Secondary Literacy Methods Across the Curriculum	3
Complete one of the following, based on content area concentration:		2
EDUC 580A	Secondary Instructional Methods for English Language Arts	
EDUC 580B	Secondary Instructional Methods for Social Studies	
EDUC 580C	Secondary Instructional Methods for Mathematics	
EDUC 580D	Secondary Instructional Methods for Science	
EDUC 580E	Secondary Instructional Methods for Spanish	
	Semester Credit Hours	**9**
Spring Semester		
EDUC 599B	ITL 3: Directed Teaching: Secondary Education	9
	Semester Credit Hours	**9**
	Total Semester Credit Hours	**30**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Rhetoric and Literary Studies (Graduate Certificate)

Award: Graduate Certificate
Program of Study: Rhetoric and Literary Studies
Program Code: 7221

This program is no longer accepting new students.

The Colorado Mesa University Graduate Certificate in Rhetoric and Literary Studies is a dynamic program designed to meet the needs of education professionals who desire to teach lower-division college English courses in high school or higher education but who don't have the necessary graduate credits to do so. The certificate is awarded after successful completion of 18 credit hours in graduate coursework in English, and the program is designed to provide students with more advanced knowledge in composition and rhetoric, literary theory, linguistics, creative writing, and American and British literature.

Important information for this program:

- A Bachelor's degree from an accredited college is required, prior to beginning the program.
- A fully completed Application for Admission to Graduate Programs including official transcripts is required prior to beginning the program.
- Applicants must also submit to the English Department a Letter of Intent of no fewer than 1000 words that provides information about the students' background, interests, and inspirations, including how they relate to the Graduate Certificate in Rhetoric and Literary Studies.
- For additional information on applicable polices, please refer to the Graduate Policies and Procedures Manual.

Graduate certificates will, at a minimum, align with either two Masters student learning outcomes or two Doctoral student learning outcomes, depending on certificate level. Certificates may choose to use more than two student learning outcomes, if desired. In addition to these campus-wide student learning outcomes, all recipients of this Graduate Certificate will be able to:

1. Contribute to scholarly advancement in composition/rhetoric, linguistics, creative writing and literary studies by completing projects individually and collaboratively. (Specialized Knowledge/Applied Learning)
2. Generate oral and written communication based on sound theories of composition/rhetoric, linguistics, creative writing and literary studies. (Communication Fluency)

3. Formulate hypotheses related to research problems, issues, and concepts in the fields of composition/rhetoric, linguistics, creative writing and literary studies. (Critical Thinking)
4. Synthesize information from a base of scholarly resources related to composition/rhetoric, linguistics, creative writing and literary studies. (Information Literacy)
5. Evaluate moral, ethical, legal, or professional challenges in the disciplines of composition/rhetoric, linguistics, creative writing and literary studies. (Ethical Reasoning)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Graduate Degree Requirements

The following institutional requirements apply to all CMU graduate-level degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Graduate certificates consist of a minimum of 5 credit hours. Master's degrees consist of a minimum of 30 credit hours. Doctoral degrees consist of a minimum of 60 credit hours.
- All credits in a graduate program must be minimally at the 500-level.
- At least fifty percent of the credit hours must be taken at CMU.
- Students must achieve a 3.00 cumulative GPA or higher in all CMU coursework.
- Students may not apply coursework with a grade lower than a "B" toward graduation requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Graduate Degree Requirements (p. 87)" in this catalog for a complete list of graduation requirements.
- All policies for graduate certificates are outlined in the Graduate Policies and Procedures Manual, which is provided on the Graduate Studies website.

Program Specific Requirements

(18 semester hours, must pass all courses with a grade of "B" or better.)

Code	Title	Semester Credit Hours
ENGL 521	Seminar in Literary Theory	3
ENGL 543	Language Systems and Linguistic Diversity	3
ENGL 550	Studies in Creative Writing	3
ENGL 554	Topics in British and Commonwealth Literature	3
ENGL 561	Topics in American Literature	3
ENGL 586	Seminar in Rhetoric and Composition	3
Total Semester Credit Hours		**18**

Suggested Course Plan

First Year		
Summer Semester		**Semester Credit Hours**
ENGL 586	Seminar in Rhetoric and Composition	3
	Semester Credit Hours	**3**
Fall Semester		
ENGL 521	Seminar in Literary Theory	3
	Semester Credit Hours	**3**
Spring Semester		
ENGL 554	Topics in British and Commonwealth Literature	3
	Semester Credit Hours	**3**
Second Year		
Summer Semester		
ENGL 550	Studies in Creative Writing	3
	Semester Credit Hours	**3**
Fall Semester		
ENGL 561	Topics in American Literature	3
	Semester Credit Hours	**3**
Spring Semester		
ENGL 543	Language Systems and Linguistic Diversity	3
	Semester Credit Hours	**3**
	Total Semester Credit Hours	**18**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the “Intent to Graduate” form to the Registrar’s Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's “Intent to Graduate” does not automatically move to a later graduation date.

Social Science (Graduate Certificate)

Award: Graduate Certificate
Program of Study: Social Sciences
Program Code: 7771

This program is no longer accepting new students.

This graduate certificate is designed for high school teachers who need certification to teach history and political science courses for lower-division college level credit.

Graduate certificates will, at a minimum, align with either two Masters student learning outcomes or two Doctoral student learning outcomes, depending on certificate level. Certificates may choose to use more than two student learning outcomes, if desired. In addition to these campus-wide student learning outcomes, all recipients of this Graduate Certificate will be able to:

1. Contribute to scholarly advancement in the chosen field by completing projects individually and collaboratively (specialized knowledge/applied learning);
2. Create oral and written arguments or explanations, well-grounded in discipline-specific theories and methods, for specified audiences (communication fluency);
3. Formulate and evaluate hypotheses as related to research problems, issues, concepts, and various perspectives (critical thinking);
4. Synthesize, evaluate, or refine the information base of various scholarly sources (information literacy); and
5. Evaluate moral, ethical, legal, or professional challenges within the discipline (ethical reasoning).

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Graduate Degree Requirements

The following institutional requirements apply to all CMU graduate-level degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Graduate certificates consist of a minimum of 5 credit hours. Master’s degrees consist of a minimum of 30 credit hours. Doctoral degrees consist of a minimum of 60 credit hours.
- All credits in a graduate program must be minimally at the 500-level.
- At least fifty percent of the credit hours must be taken at CMU.
- Students must achieve a 3.00 cumulative GPA or higher in all CMU coursework.
- Students may not apply coursework with a grade lower than a “B” toward graduation requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Graduate Degree Requirements (p. 87)” in this catalog for a complete list of graduation requirements.
- All policies for graduate certificates are outlined in the Graduate Policies and Procedures Manual, which is provided on the Graduate Studies website.

Program Specific Requirements

(18 semester hours, must pass all courses with a grade of “B” or better.)

- For additional information on applicable polices, please refer to the Graduate Policies and Procedures Manual.

Code	Title	Semester Credit Hours
HIST 501	Early American History: Foundation - Civil War	3
HIST 502	Late American History: Civil War - Modern U.S.	3
HIST 510	Early European History: Ancient - Reformation	3
HIST 511	Modern European History: Reformation - 20th Century	3
POLS 501	Theories of Political Science	3
POLS 505	American Government	3
Total Semester Credit Hours		**18**

Suggested Course Plan

First Year		
Summer Semester		**Semester Credit Hours**
HIST 501	Early American History: Foundation - Civil War	3
	Semester Credit Hours	**3**
Fall Semester		
HIST 502	Late American History: Civil War - Modern U.S.	3
	Semester Credit Hours	**3**
Spring Semester		
HIST 510	Early European History: Ancient - Reformation	3
	Semester Credit Hours	**3**
Second Year		
Summer Semester		
HIST 511	Modern European History: Reformation - 20th Century	3
	Semester Credit Hours	**3**
Fall Semester		
POLS 501	Theories of Political Science	3
	Semester Credit Hours	**3**
Spring Semester		
POLS 505	American Government	3
	Semester Credit Hours	**3**
	Total Semester Credit Hours	**18**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Electrical/Computer Engineering

Program Description

Colorado Mesa University and the University of Colorado Boulder partner to deliver an electrical and computer engineering (ECE) program in its entirety in Grand Junction. Electrical and computer engineers design and create a wide range of products. The degree is designed to train engineers who understand computer programming as well as hardware design necessary to perform complicated tasks (e.g., robotics, mechatronics, digital twins, the Internet of Things, communication systems, and control systems, etc.).

Students completing the program will be awarded a Bachelor of Science in Electrical and Computer Engineering degree from CU Boulder.

Special Requirements

Students enter CMU as "pre-ECE" majors. A student may apply for admission to the University of Colorado Boulder through the Engineering Partnership Program when they have satisfied all criteria of one of the following scenarios:

Scenario 1

- Complete a college-level, two-course sequence in calculus with a grade of B− or higher
- Complete one college-level physical science course (calculus-based physics and/or college-level chemistry) with a grade of B− or higher
- Maintain a college-level cumulative GPA of 3.0 or higher

Scenario 2

- Complete the first- and second-year course sequence listed on the current Program Sheet or Degree Plan for the Engineering Partnership Program
- Maintain a college-level cumulative GPA of 3.0 or higher

Interested students can learn more about the program and admission options on the Department of Computer Science and Engineering website.

Contact Information

Department of Computer Science and Engineering
Confluence Hall
1410 North 7th Street
Grand Junction, CO, 81501
970.248.1400

Programs of Study Bachelors/Minors

- Electrical/Computer Engineering, CMU/CU-Boulder Partnership Program (BS ECEE) (p. 403)

Electrical/Computer Engineering, CMU/CU-Boulder Partnership Program (BS ECEE)

Degree: Bachelor of Science in Electrical and Computer Engineering
Major: Electrical and Computer Engineering
Program Code: 3456

This section provides links to information for the CMU-CU Boulder Electrical and Computer Engineering Partnership Program. An official review of your coursework will be performed by CU administration to ensure completion of all graduation requirements.

Important information for this program:

- All Math, Science, and Engineering courses completed at CMU must be completed with a grade of "C" or better to be eligible to transfer to CU Boulder.
- Minimum credits taken from CU Boulder: 45 hrs
- Minimum credits to graduate: 128 hrs

For more information on the CMU-CU Boulder Partnership Degree in Electrical and Computer Engineering, visit the Electrical and Computer Engineering web page.

Electric Lineworker

Program Description

This program covers all areas of training required to work with electric lines including basic skills and studies of electricity, math, fundamentals of line work, transformer connections, and underground installation. In addition to training at the field location, all students will receive the following certificates of completion, which are critical requirements for lineworker employment: American Heart Association – First Aid, CPR and AED Training, OSHA 10-Hour Class, Use of Wood Pole Fall Restraints, Setup for Digger Derricks, Set-up for Aerial Unit Devices, Pole-top and Aerial Unit Rescue, Powered Industrial Truck Training (Forklift), and Basic Rigging Class. It is strongly recommended that students obtain their CDL for optimal employment opportunities. With this certificate, students will be prepared for entry-level positions including temporary utility worker, groundman, and/or apprentice lineworker.

Special Requirements

Climbing and working on poles and towers at a height of 50+ feet is required. Students receive field training and practical theory in all phases of powerline installation and maintenance. An outdoor laboratory covers climbing (with a Wood Pole Fall Arrest Device), setting and removing various sizes of poles (with the use of a Digger Derrick), guy work, conductors, stringing and splicing, transformers, street lights, installation of services and the use and care of safety equipment. Prospective students are encouraged to contact CMU Tech regarding physical requirements. This program begins only in the fall semester of each year.

This is a highly competitive program; applicants are encouraged to enroll early. Visit the Electric Lineworker web page for the program application checklist and information sheet.

Contact Information

CMU Tech
Office of Student Services, Kayenta Hall 102
2508 Blichmann Avenue
970.255.2670

Programs of Study

Associates

- Electric Lineworker (AAS) (p. 404)

Certificates

- Electric Lineworker (Technical Certificate) (p. 406)

Electric Lineworker (AAS)

Degree: Associate of Applied Science
Major: Electric Lineworker
Program Code: 1391

This program covers all areas of training required to work with electric lines, including: basic skills in studies of electricity, math, fundamentals of line work, transformer connections, and underground installation. Students will be prepared for entry-level positions as electric line mechanics, electric line workers, or power line workers

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Apply principles of grammar and vocabulary in the documentation required to perform the duties of a ground man or lineman in the electrical distribution industry. (Communication Fluency)
2. Apply mathematical concepts to perform electrical formula calculations used for finding voltages, amperes, resistance, and power. (Quantitative Fluency)
3. Demonstrate familiarity with Standard Operating Procedures regarding climbing structures, replacing associated equipment, pole setting procedures, and soil recognition for underground applications and perform all required safety procedures. (Specialized Knowledge)
4. Evaluate a situation, and determine which Standard Operating Procedure (SOP) applies to perform the job in a safe and timely manner. (Applied Learning)
5. Describe the scope and application of principle features of an electric line worker, including core practices required by the electrical distribution industry. (Critical Thinking)
6. Evaluate company policies, ethical standards and perform in a manner that is consistent to Federal and State laws. (Specialized Knowledge)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and

internships, cannot exceed 20 semester credit hours for an AAS degree.

- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this degree:

- 62 semester hours total for the AAS, Electric Line Worker.
- A minimum of 16 semester hours taken at CMU in no fewer than two semesters.

Essential Learning Requirements

(15 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
Communication		
ENGL 111	English Composition I-GTCO1	3
Select one of the following courses:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communication	
SPCH 102	Speechmaking	
Mathematics		
MATH 107	Career Math (or higher)	3
Other Essential Learning Core Courses		
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
Total Semester Credit Hours		**15**

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Total Semester Credit Hours		**2**

Program Specific Degree Requirements

(45 semester hours, must earn a grade of "C" or better in each course.)

Additional expenses - Students will be required to purchase or have approximately $2600.00 in tools and personal equipment. This does not include required textbooks or an adequate pair of work boots. These costs may vary with student needs and brand or quality of tools or equipment purchased. All safety glasses must meet the minimum industry safety standard of Z-87 with side shields.

Students will only be able to register for second semester courses upon the successful completion of first semester courses with a "C" or higher in each course.

Code	Title	Semester Credit Hours
Core Courses		
ELCL 125	Job Training and Safety	4
ELCL 131	Electrical Distribution Theory I	4
ELCL 131L	Electric Distribution Lab	4
ELCL 132	Electrical Distribution Theory II	4
ELCL 132L	Electrical Distribution Theory II Laboratory	4
ELCL 137	Advanced Electrical Distribution	2
ELCL 137L	Advanced Electrical Distribution Laboratory	4
ELCL 140	Underground Procedures	4
ELCL 145	Hotline Procedures	1
ELCL 145L	Hotline Procedures Laboratory	2
Total Semester Credit Hours		**33**

Code	Title	Semester Credit Hours
Restricted Electives		
Choose 12 semester hours from the list below:		12
ABUS 101	Budget Analysis	
ABUS 102	Business Basics	
ABUS 160	Introduction to Customer Service	
ABUS 200	Business Rules and Regulations	
ABUS 257	Managing Office Technology I	
BUGB 101	Introduction to Business	
BUGB 211	Business Communications	
BUGB 231	Survey of Business Law	
FLAS 111	First-Year Spanish I	
GEOL 100	Survey of Earth Science-GTSC2	
GEOL 103	Weather and Climate-GTSC2	
GEOL 105	Geology of Colorado-GTSC2	
GEOG 131	Introduction to Cartography	
MANG 201	Principles of Management	
TSTG 220	Workplace Skills	
Total Semester Credit Hours		**12**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
Social Sciences, Natural Sciences, Fine Arts or Humanities		3

Restricted Electives		6
	Semester Credit Hours	**12**
Spring Semester		
Select one of the following:		3
SPCH 101	Interpersonal Communication	
SPCH 102	Speechmaking	
ENGL 112	English Composition II-GTCO2	
KINE 100	Health and Wellness	1
KINA Activity Course		1
Social Sciences, Natural Sciences, Fine Arts or Humanities		3
Restricted Electives		6
	Semester Credit Hours	**14**
Second Year		
Fall Semester		
MATH 107	Career Math	3
ELCL 125	Job Training and Safety	4
ELCL 131	Electrical Distribution Theory I	4
ELCL 131L	Electric Distribution Lab	4
	Semester Credit Hours	**15**
Spring Semester		
ELCL 132	Electrical Distribution Theory II	4
ELCL 132L	Electrical Distribution Theory II Laboratory	4
ELCL 137	Advanced Electrical Distribution	2
ELCL 137L	Advanced Electrical Distribution Laboratory	4
ELCL 140	Underground Procedures	4
ELCL 145	Hotline Procedures	1
ELCL 145L	Hotline Procedures Laboratory	2
	Semester Credit Hours	**21**
	Total Semester Credit Hours	**62**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Electric Lineworker (Technical Certificate)

Award: Technical Certificate
Program of Study: Electric Lineworker
Program Code: 1381

This program covers all areas of training required to work with electric lines, including: basic skills in studies of electricity, math, fundamentals of line work, transformer connections, and underground installation. With this certificate, students will be prepared for entry-level positions as electric line mechanics, electric line workers, or power line workers.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Apply principles of grammar and vocabulary in the documentation required to perform the duties of a Ground man or an Apprentice Lineman for the electrical industry. (Communication Fluency)
2. Describe the scope and application of principle features of an electric line worker, including core practices required by electrical industry. (Critical Thinking)
3. Demonstrate familiarity with Standard Operating Procedures regarding climbing structures, replacing associated equipment, pole setting procedures, and soil recognition for underground applications while performing all required safety procedures. (Specialized Knowledge)
4. Perform as a member of a crew in an ethical manner consistent with public, and company policy. (Applied Learning)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option

prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than “C” will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(36 semester hours, must earn a "C" or higher in each course.)

- Additional expenses - Students will be required to purchase or have approximately $2600.00 in tools and personal equipment. This does not include required textbooks or an adequate pair of work boots. These costs may vary with student needs and brand or quality of tools or equipment purchased. All safety glasses must meet the minimum industry safety standard of Z-87 with side shields.
- Students will only be able to register for second semester courses upon the successful completion of first semester courses with a "C" or higher in each course.

Code	Title	Semester Credit Hours
MATH 107	Career Math	3
ELCL 125	Job Training and Safety	4
ELCL 131	Electrical Distribution Theory I	4
ELCL 131L	Electric Distribution Lab	4
ELCL 132	Electrical Distribution Theory II	4
ELCL 132L	Electrical Distribution Theory II Laboratory	4
ELCL 137	Advanced Electrical Distribution	2
ELCL 137L	Advanced Electrical Distribution Laboratory	4
ELCL 140	Underground Procedures	4
ELCL 145	Hotline Procedures	1
ELCL 145L	Hotline Procedures Laboratory	2
Total Semester Credit Hours		**36**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
MATH 107	Career Math	3
ELCL 125	Job Training and Safety	4
ELCL 131	Electrical Distribution Theory I	4
ELCL 131L	Electric Distribution Lab	4
	Semester Credit Hours	**15**
Spring Semester		
ELCL 132	Electrical Distribution Theory II	4
ELCL 132L	Electrical Distribution Theory II Laboratory	4
ELCL 137	Advanced Electrical Distribution	2
ELCL 137L	Advanced Electrical Distribution Laboratory	4
ELCL 140	Underground Procedures	4
ELCL 145	Hotline Procedures	1
ELCL 145L	Hotline Procedures Laboratory	2
	Semester Credit Hours	**21**
	Total Semester Credit Hours	**36**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student’s responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar’s Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar’s Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the “Intent to Graduate” form to the Registrar’s Office to officially declare the intended graduation date and commencement ceremony plans.

- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Emergency Management and Disaster Planning

Program Description

An Emergency Management and Disaster Planning certificate is an addition for students from a variety of majors interested in engaging in emergency and disaster related services in the public, non-profit and private sectors. The certificate provides the knowledge and skills necessary for students to engage in activities related to responding to, recovering from, preparing for and mitigating against disasters. The certificate also prepares students for completing the national certification program in emergency management.

Contact Information

Department of Social and Behavioral Sciences
Houston Hall
970.248.1696

Programs of Study

Certificates

- Emergency Management and Disaster Planning (Professional Certificate) (p. 408)

Emergency Management and Disaster Planning (Professional Certificate)

Award: Professional Certificate
Program of Study: Emergency Management and Disaster Planning
Program Code: 1771

The certificate in emergency management and disaster planning is designed to provide students with the knowledge and skills needed to engage in emergency management and disaster preparedness activities in public, private, and nonprofit organizations. It also prepares students for successfully completing the exam and essay requirements for the International Association of Emergency Managers' certified emergency manager certification process. Completion of the certificate in emergency management and disaster planning will also contribute to the training requirements for the International Association of Emergency Managers' certified emergency manager certification process.

All CMU certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, critical thinking, and personal and social responsibility. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Synthesize current theories, principles, and practices in emergency management. (Specialized Knowledge)
2. Communicate emergency management perspectives to various audiences. (Communication Fluency)
3. Apply problem-solving skills to issues in emergency management. (Critical Thinking)
4. Combine emergency management theory with practitioner experience and skills. (Applied Learning)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU Professional Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Primarily 300-400 level courses.
- At least fifty percent of the credit hours must be taken at CMU.
- 2.00 cumulative GPA or higher in all CMU coursework.
- A grade lower than “C” in the program of study will not be counted toward meeting the certificate’s requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(9 semester hours, must earn a grade of "C" or better in each course.)

Code	Title	Semester Credit Hours
EMDP 211	Introduction to Emergency Management [1]	3
EMDP 321	Hazard Preparedness and Mitigation [1]	3
EMDP 331	Disaster Response and Recovery [1]	3

[1] Consult with Social and Behavioral Sciences Department advisor regarding prerequisite classes that might be necessary to take.

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
EMDP 211	Introduction to Emergency Management	3
	Semester Credit Hours	**3**
Spring Semester		
EMDP 321	Hazard Preparedness and Mitigation	3
EMDP 331	Disaster Response and Recovery	3
	Semester Credit Hours	**6**
	Total Semester Credit Hours	**9**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student’s responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar’s Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar’s Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the “Intent to Graduate” form to the Registrar’s Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's “Intent to Graduate” does not automatically move to a later graduation date.

Emergency Medical Services

Program Description

The Emergency Medical Technician (EMT) represents the first component of the emergency medical technician system. An EMT is trained to care for patients in their home, in an emergency situation or at the scene of an accident, and while transporting patients by ambulance to the hospital under medical direction. EMT coursework typically emphasizes emergency skills, such as patient assessment, communication, anatomy and physiology, airway management, trauma, obstetrics, and cardiac emergencies. Formal courses are combined with skills practice, practical application, and clinical time in an emergency room and on an ambulance for a total of 195 contact hours. The program also provides instruction and practice in dealing with bleeding, fractures, airway obstruction, cardiac arrest, and emergency childbirth. Students learn how to use and maintain common emergency equipment, such as suction devices, splints, oxygen delivery systems, stretchers, blood pressure cuffs, stethoscopes, medications and, when appropriate, current backboarding devices. The program prepares the graduate to take the NREMT examination and become certified as an EMT. Career options include opportunities in hospital emergency rooms, fire departments, physicians' offices, private ambulance services, ski patrol, Urgent Care Centers, wildland firefighting, and with search and rescue.

The Paramedic represents the most advanced level of training of the Emergency Medical Technician system. At this level, the caregiver receives advanced training in patient assessment, the use of advanced procedures, medications, and the paramedic skills necessary to lead a team in the management of medical emergencies and traumatic injuries in patients of all ages. Paramedics provide the most extensive pre-hospital care. Through performance of assessments and providing advanced medical care, their goal is to prevent and reduce mortality and morbidity due to illness and injury. Paramedics primarily provide care to emergency patients in and out of the hospital setting. This program prepares the graduate to take the NREMT examination and become certified or licensed as a Paramedic. Extensive related coursework and clinical and field experience are required. Students admitted to the program must have and maintain EMT certification throughout the Paramedic program and must have completed IV Therapy and basic EKG courses. It is recommended that students take Anatomy and Physiology and /or Pathophysiology prior to entering the Paramedic program.

Admission to the Paramedic program is competitive. Admission into Colorado Mesa University does not guarantee acceptance into the Paramedic program, which requires a separate application process. Paramedics should be emotionally stable, have good dexterity, agility, and physical coordination, and be able to lift and carry heavy loads. Paramedics are employed by fire, police, rescue agencies, hospitals, private ambulance companies, flight for life, and in a variety of businesses and industries with a high potential for accidental injury or illness. Graduates from either the certificate or the AAS degree program will graduate as street-ready paramedics.

Special Requirements

Students must earn a “C” or higher for all courses required for completion of the EMS programs. This policy applies regardless of when the course was taken.

Students must possess a current CPR card while in all EMS courses.

Students must be 18 years of age prior to the start of clinical rotations-see instructor.

A Criminal Background Check and Drug Screen are required for all EMS students.

As a graduate of a Career and Technical Education program you will be contacted by CMU/CMU Tech in approximately six months after completion to verify your employment information. This information gathering is a federal requirement to ensure that CMU Tech receives certain federal funding.

Contact Information

CMU Tech
Office of Student Services, Kayenta Hall 102
2508 Blichmann Avenue
970.255.2670

Programs of Study

Associates

- EMT - Paramedic (AAS) (p. 410)

Certificates

- EMT - Basic (Technical Certificate) (p. 412)
- EMT - Paramedic (Technical Certificate) (p. 414)

EMT - Paramedic (AAS)

Degree: Associate of Applied Science
Major: Emergency Medical Technician - Paramedic
Program Code: 1632

The EMT-Paramedic represents the most advanced level of training of the emergency medical technician system. At this level, the caregiver receives advanced training in the use of procedures, medications and equipment to manage medical emergencies and traumatic injuries in patients of all ages. EMT-Paramedics (EMT-4) provide the most extensive pre-hospital care. Through performance of assessments and providing medical care, their goal is to prevent and reduce mortality and morbidity due to illness and injury. Paramedics primarily provide care to emergency patients in an out-of-hospital setting. The program prepares the graduate to take the NREMT examination and become certified as an EMT-Paramedic. Extensive related coursework and clinical and field experience is required.

Students admitted to the program must have and maintain EMT-Basic certification throughout the EMT-Paramedic program. Admission to the Paramedic program is competitive. EMTs and paramedics should be emotionally stable, have good dexterity, agility, and physical coordination, and be able to lift and carry heavy loads.

EMT-Paramedics are employed by fire, police and rescue agencies, hospitals, private ambulance companies and in a variety businesses and industries with a high potential for accidental injury or illness.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social

responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Demonstrate intellectual reasoning, rational inquiry, and effective problem-solving skills while maintaining empathy, professionalism, and compassion for another. (Critical Thinking)
2. Recommend access to resources necessary to meet the diverse health care needs of individuals, families, and communities within cultural, ethical, legal, social, economic, and professional parameters. (Specialized Knowledge, Personal Responsibility)
3. Manage the collaborative health care of individuals, families, and communities through use of clear, effective, thorough, and accurate communication (Communication Fluency, Information Literacy)
4. Practice Paramedic level care, which includes emergency care, illness and restorative care, and health education based on a systematic assessment that is reflective of current emergency theory and research (Specialized Knowledge, Quantitative Literacy)
5. Demonstrate NREMT (National Registry of Emergency Medical Technicians)standards of practice, including legal basics, principles for delegation, and principles of documentation while maintaining a culture of respect and safety. (Specialized Knowledge)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Specific to this degree:

- 63 semester hours total for the AAS, Emergency Medical Technician-Paramedic.

Essential Learning Requirements

(16 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
Communication		
ENGL 111	English Composition I-GTCO1	3
Select one of the following courses:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communication	
SPCH 102	Speechmaking	
Mathematics		
MATH 107	Career Math (or higher) [1]	3
Other Essential Learning Core Courses		
BIOL 101 & 101L	General Human Biology-GTSC1 and General Human Biology Laboratory-GTSC1	4
PSYC 150	General Psychology-GTSS3	3
Total Semester Credit Hours		**16**

[1] MATH 110 or higher is required for BA/BAS programs.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Total Semester Credit Hours		**2**

Program Specific Degree Requirements

(45 semester hours, must earn a grade of "C" or better in each course.)

Code	Title	Semester Credit Hours
EMTS 225	Fundamentals of Paramedic Practice	3
EMTS 225L	Fundamentals of Paramedic Practice Laboratory	2
EMTS 227	Paramedic Special Considerations	3

EMTS 227L	Paramedic Special Considerations Laboratory	2
EMTS 229	Paramedic Pharmacology	3
EMTS 229L	Paramedic Pharmacology Laboratory	2
EMTS 231	Paramedic Cardiology	5
EMTS 231L	Paramedic Cardiology Laboratory	1
EMTS 233	Paramedic Medical Emergencies	4
EMTS 233L	Paramedic Medical Emergencies Laboratory	1
EMTS 235	Paramedic Trauma Emergencies	4
EMTS 235L	Paramedic Trauma Emergencies Laboratory	1
EMTS 237	Paramedic Internship Preparation	2
EMTS 280	Paramedic Internship I	6
EMTS 281	Paramedic Internship II	6
Total Semester Credit Hours		**45**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
EMTS 225 & 225L	Fundamentals of Paramedic Practice and Fundamentals of Paramedic Practice Laboratory	5
EMTS 229 & 229L	Paramedic Pharmacology and Paramedic Pharmacology Laboratory	5
EMTS 231 & 231L	Paramedic Cardiology and Paramedic Cardiology Laboratory	6
	Semester Credit Hours	**16**
Spring Semester		
EMTS 227 & 227L	Paramedic Special Considerations and Paramedic Special Considerations Laboratory	5
EMTS 233 & 233L	Paramedic Medical Emergencies and Paramedic Medical Emergencies Laboratory	5
EMTS 235 & 235L	Paramedic Trauma Emergencies and Paramedic Trauma Emergencies Laboratory	5
	Semester Credit Hours	**15**
Summer Semester		
EMTS 237	Paramedic Internship Preparation	2
EMTS 280	Paramedic Internship I	6
EMTS 281	Paramedic Internship II	6
	Semester Credit Hours	**14**
Second Year		
Fall Semester		
ENGL 111	English Composition I-GTCO1	3
SPCH 101	Interpersonal Communication	3
MATH 107	Career Math	3
BIOL 101 & 101L	General Human Biology-GTSC1 and General Human Biology Laboratory-GTSC1	4
PSYC 150	General Psychology-GTSS3	3
KINE 100	Health and Wellness	1
KINA Activity Course		1
	Semester Credit Hours	**18**
	Total Semester Credit Hours	**63**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

EMT - Basic (Technical Certificate)

Award: Technical Certificate
Program of Study: Emergency Medical Technician
Specialization: Basic
Program Code: 1631

The EMT-Basic represents the first component of the emergency medical technician system. An EMT-B is trained to care for patients at the scene of an accident and while transporting patients by ambulance to the hospital under medical direction. The EMT-B has the emergency skills to assess a patient's condition and manage respiratory, cardiac, and trauma emergencies. EMT-Basic coursework typically emphasizes emergency skills, such as patient assessment, managing respiratory, trauma, and cardiac emergencies. Formal courses are combined with skills practice and time in an emergency room or ambulance for a total of 195 contact hours. The program also provides instruction and practice in dealing with bleeding, fractures, airway obstruction, cardiac arrest, and emergency childbirth. Students learn how to use and maintain common emergency equipment, such as backboards, suction devices, splints, oxygen delivery systems, and stretchers. Graduates of approved EMT-Basic training programs who pass a written and practical examination administered by the State certifying agency or the NREMT earn the title "Registered EMT-Basic."

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Demonstrate the theoretical knowledge and practical skills in the performance of patient assessment and develop a proper treatment plan. (Specialized Knowledge)
2. Demonstrate skills practice according to NREMT standards in safety, professional behavior and ethical conduct. (Applied Learning)
3. Apply standard of care skills and procedures to ensure the proper care and dosage of medications given to a patient. (Quantitative Fluency)
4. Communicate courteously and effectively with Dispatch personnel, other health care professionals, patients and with the public. (Communication Fluency)
5. Demonstrate error recognition and the ability to correctly interpret patient signs and symptoms, and establish a course of action to solve problems and improve patient outcome. (Critical Thinking)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than “C” will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(12 semester hours, must maintain a 2.00 cumulative GPA or higher.)

Code	Title	Semester Credit Hours
EMTS 121	EMT Fundamentals	3
EMTS 122	EMT Medical Emergencies	4
EMTS 123	EMT Trauma Emergencies	2
EMTS 124	EMT Special Considerations	2
EMTS 170	EMT Clinical	1
Total Semester Credit Hours		**12**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
EMTS 121	EMT Fundamentals	3
EMTS 122	EMT Medical Emergencies	4
EMTS 123	EMT Trauma Emergencies	2
EMTS 124	EMT Special Considerations	2
EMTS 170	EMT Clinical	1
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**12**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student’s responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar’s Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar’s Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the “Intent to Graduate” form to the Registrar’s Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's “Intent to Graduate” does not automatically move to a later graduation date.

EMT - Paramedic (Technical Certificate)

Award: Technical Certificate
Program of Study: Emergency Medical Technician
Specialization: Paramedic
Program Code: 1636

The EMT-Paramedic represents the most advanced level of training of the emergency medical technician system. At this level, the caregiver receives advanced training in the use of procedures, medications and equipment to manage medical emergencies and traumatic injuries in patients of all ages. EMT-Paramedics (EMT-4) provide the most extensive pre-hospital care. Through performance of assessments and providing medical care, their goal is to prevent and reduce mortality and morbidity due to illness and injury. Paramedics primarily provide care to emergency patients in an out-of-hospital setting. The program prepares the graduate to take the NREMT examination and become certified as an EMT-Paramedic. Extensive related coursework and clinical and field experience is required.

Students admitted to the program must have and maintain EMT-Basic certification throughout the EMT-Paramedic program. Admission to the Paramedic program is competitive. EMTs and paramedics should be emotionally stable, have good dexterity, agility, and physical coordination, and be able to lift and carry heavy loads.

EMT-Paramedics are employed by fire, police and rescue agencies, hospitals, private ambulance companies and in a variety businesses and industries with a high potential for accidental injury or illness.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Demonstrate intellectual reasoning, rational inquiry, and effective problem-solving skills while maintaining empathy, professionalism, and compassion for another. (Critical Thinking)
2. Recommend access to resources necessary to meet the diverse health care needs of individuals, families, and communities within cultural, ethical, legal, social, economic, and professional parameters. (Specialized Knowledge)
3. Manage the collaborative health care of individuals, families, and communities through use of clear, effective, thorough, and accurate communication.(Communication Fluency)
4. Practice Paramedic level care, which includes emergency care, illness and restorative care, and health education based on a systematic assessment that is reflective of current emergency theory and research. (Specialized Knowledge and Quantitative Literacy)
5. Demonstrate NREMT standards of practice, including legal basics, principles for delegation, and principles of documentation while maintaining a culture of respect and safety. (Specialized Knowledge)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than “C” will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(45 semester hours, must maintain a 2.00 cumulative GPA or higher.)

Code	Title	Semester Credit Hours
EMTS 225	Fundamentals of Paramedic Practice	3
EMTS 225L	Fundamentals of Paramedic Practice Laboratory	2
EMTS 227	Paramedic Special Considerations	3
EMTS 227L	Paramedic Special Considerations Laboratory	2
EMTS 229	Paramedic Pharmacology	3
EMTS 229L	Paramedic Pharmacology Laboratory	2
EMTS 231	Paramedic Cardiology	5
EMTS 231L	Paramedic Cardiology Laboratory	1
EMTS 233	Paramedic Medical Emergencies	4
EMTS 233L	Paramedic Medical Emergencies Laboratory	1
EMTS 235	Paramedic Trauma Emergencies	4
EMTS 235L	Paramedic Trauma Emergencies Laboratory	1
EMTS 237	Paramedic Internship Preparation	2
EMTS 280	Paramedic Internship I	6
EMTS 281	Paramedic Internship II	6
Total Semester Credit Hours		**45**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
EMTS 225 & 225L	Fundamentals of Paramedic Practice and Fundamentals of Paramedic Practice Laboratory	5
EMTS 229 & 229L	Paramedic Pharmacology and Paramedic Pharmacology Laboratory	5
EMTS 231 & 231L	Paramedic Cardiology and Paramedic Cardiology Laboratory	6
	Semester Credit Hours	**16**
Spring Semester		
EMTS 227 & 227L	Paramedic Special Considerations and Paramedic Special Considerations Laboratory	5
EMTS 233 & 233L	Paramedic Medical Emergencies and Paramedic Medical Emergencies Laboratory	5
EMTS 235 & 235L	Paramedic Trauma Emergencies and Paramedic Trauma Emergencies Laboratory	5
	Semester Credit Hours	**15**
Summer Semester		
EMTS 237	Paramedic Internship Preparation	2
EMTS 280	Paramedic Internship I	6
EMTS 281	Paramedic Internship II	6
	Semester Credit Hours	**14**
	Total Semester Credit Hours	**45**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around.

Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Energy Management/Landman

Program Description

For more information on the BBA in Energy Management/Landman, see Business (p. 199).

The certificate in Energy Management/Landman is designed to provide students with the knowledge and skills needed to engage in landman activities in the energy sector. The certificate will provide students with a foundation for further study in the Energy Management/Landman concentration in the BBA, which more fully prepares a person for a successful career in the growing energy industry.

Contact Information

Davis School of Business
Dominguez Hall 301
970.248.1778

Programs of Study Bachelors/Minors

- Energy Management/Landman, Business Administration (BBA) (p. 211)

Certificates

- Energy Management/Landman (Professional Certificate) (p. 416)

Energy Management/Landman (Professional Certificate)

Award: Professional Certificate
Program of Study: Energy Management/Landman
Program Code: 1174

The Certificate in Energy Management/Landman is designed to provide students with the knowledge and skills needed to engage in Landman/ Energy Management activities in the workplace. The certificate will provide students with an overview of information they would encounter if they went on to earn the Energy Management/Landman Concentration in the BBA, which more fully prepares a person for a successful career in the growing energy industry.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU Professional Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Primarily 300-400 level courses.
- At least fifty percent of the credit hours must be taken at CMU.
- 2.00 cumulative GPA or higher in all CMU coursework.
- A grade lower than "C" in the program of study will not be counted toward meeting the certificate's requirements.
- A course may only be used to fulfill one requirement for each degree/ certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(12 semester hours, must earn a grade of "C" or better in each course.)

Code	Title	Semester Credit Hours
EMGT 350	Energy Development, Transportation, and Markets [1]	3
EMGT 355	Landman Geo-Petro-Engineering [1]	3
EMGT 440	Energy Land Practices I [1]	3
EMGT 450	Energy Land Practices II	3

[1] Consult with Business Department advisor regarding prerequisite classes that might be necessary to take.

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
EMGT 355	Landman Geo-Petro-Engineering	3
	Semester Credit Hours	**3**
Spring Semester		
EMGT 350	Energy Development, Transportation, and Markets	3
	Semester Credit Hours	**3**
Second Year		
Fall Semester		
EMGT 440	Energy Land Practices I	3
	Semester Credit Hours	**3**

Spring Semester		
EMGT 450	Energy Land Practices II	3
	Semester Credit Hours	**3**
	Total Semester Credit Hours	**12**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Engineering

See Civil Engineering (p. 256), Electrical/Computer Engineering (p. 403), Mechanical Engineering (p. 606), or Mechanical Engineering Technology (p. 607).

English

Program Description

Colorado Mesa University offers a Bachelor of Arts in English or English Secondary Education, a minor in English, and a Professional Certificate in Editing and Technical Communication. Students gain breadth as they read widely in world, British, and American literatures, and they gain depth as they engage contemporary literary theory, linguistics, and rhetoric. With the intense focus on writing and critical thinking, graduates will be well prepared as they enter master and doctoral programs, law school, library science programs, or move directly into the work force as public relations reps, guidance counselors, technical writers, or administrators at institutions related to the arts.

Opportunities abound as they hone their craft in poetry, fiction, and creative non-fiction workshops. Students may join a variety of clubs or work as an editor for CMU's own literary magazine, *The Literary Review*, *The Criterion, Horizon Magazine*, or *Pinyon Poetry*, a nationally-circulating literary periodical. These opportunities provide crucial experience and prepare students for careers that value creative and insightful employees.

For those with an interest in teaching, students gain expertise in literature and language that prepares them to focus on teaching as they design assignments, learn pedagogical theories, work closely with local middle and high school teachers, and complete student teaching internships. The Center for Teacher Education offers a comprehensive program of study that leads to licensure in Colorado. The secondary licensure program provides teacher education candidates with broad content knowledge in English and prepares them as teachers for grades 7 through 12.

Above all, by reading, interpreting, and evaluating complex literature, theories, and criticism, students learn to organize ideas, assert and defend claims, and research. Employers will value their ability to solve problems and present ideas in effective language to a wide range of audiences. They learn how to weigh evidence, identify assumptions, evaluate persuasive appeals, and recognize faulty reasoning. Employers want smart, flexible, and creative employees—all hallmarks of a Colorado Mesa University graduate in English.

The English minor interests students who want to broaden their backgrounds in the liberal arts as well as embark on careers that demand an expertise in critical thinking, close reading, and writing, such as law, journalism, advertising, theatre, business, public service, or graduate study in other academic and professional subjects. The Professional Certificate in Editing and Technical Communication, an interdisciplinary credential that combines copy editing, technical writing expertise, and design courses, is ideal for those who want a career improving, producing, and sharing documents.

The English program offers a range of courses, from composition theory and British and American literature to literary theory, linguistics, and creative writing.

Contact Information

Department of Languages, Literature and Mass Communication
Escalante Hall 237
970.248.1687

Programs of Study Bachelors/Minors

- Education: Secondary Education, English (BA) (p. 418)
- English (BA) (p. 422)
- English (Minor) (p. 428)
- Writing, English (BA) (p. 425)

Certificates

- Editing and Technical Communication (Professional Certificate) (p. 429)

Graduate

- Rhetoric and Literary Studies (Graduate Certificate) (p. 399)

Education: Secondary Education, English (BA)

Degree: Bachelor of Arts
Major: English
Concentration: Secondary Education
Program Code: 3213

The Center for Teacher Education offers a comprehensive program of study that leads to licensure in Colorado. Our professors are experienced, knowledgeable, accessible, and dedicated to the improvement of public education. At Colorado Mesa University, we pride ourselves on the personal touch. Faculty offer one-on-one guidance for course selection, field placements, student teaching, and employment. Our mission is to develop *Educators as Innovators;* we are always looking to improve the quality of learning in our programs and K-12 schools.

As a student, you will gradually accumulate over 200 hours of classroom experience before beginning student teaching. School districts throughout western Colorado provide opportunities to gain experience with children of all ages and backgrounds in a variety of school settings. The secondary licensure program provides teacher education candidates with broad content knowledge in English and prepares them as teachers for grades 7 through 12. A minimum of 75 credit hours of Essential Learning and content area coursework must be completed with a minimum GPA of 2.80 before a candidate may apply for admission to the Center for Teacher Education secondary licensure program. Please see the Teacher Education Admission Packet for further information on admissions criteria. EDUC 115 and EDUC 215, must be taken before applying to the program.

Important information for this degree:

- 2.80 cumulative GPA or higher in all CMU coursework.
- 2.80 cumulative GPA or higher in coursework toward the major content area.
- All EDUC prefix courses must be completed with a grade of “B” or better.
- Students must pass the PRAXIS II exam in the content area prior to beginning the internship. Also, all other coursework toward the degree must be successfully completed prior to the internship.
- A grade of “C” or better must be earned in all required foundation and major courses, unless otherwise stated.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Express themselves effectively in a variety of forms. (Specialized Knowledge)
2. State and support, sometimes using research, interpretive claims about a variety of texts. (Critical Thinking)
3. Identify the salient features of literary texts from a broad range of English and American literary periods. (Specialized Knowledge)
4. Employ knowledge of literary traditions to produce imaginative writing. (Communication Fluency)
5. English Outcome 5: Use research to assist in problem-solving. (Critical Thinking)
6. Demonstrate mastery of major area's content knowledge and pedagogical strategies through fieldwork with learners in professional settings. (Specialized Knowledge)
7. Design and establish a safe, inclusive, and respectful learning environment for a diverse population of students. (Specialized Knowledge)
8. Plan and deliver effective instruction to students, based on research-based pedagogical practices. (Communication Literacy/Information Literacy)
9. Collect and analyze student assessment data and use results to inform planning and instruction. (Quantitative Fluency/Critical Thinking)
10. Demonstrate professionalism through ethical conduct, reflection, and leadership. (Personal and Social Responsibility)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 110	Mathematical Investigations-GTMA1	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
PSYC 233	Human Growth and Development-GTSS3	3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [2]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

[1] Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

[2] One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(24 semester hours, must pass each course with a grade of "C" or better.)

Code	Title	Semester Credit Hours
Texts		
ENGL 254	Survey of English Literature I-GTAH2	3
ENGL 255	Survey of English Literature II-GTAH2	3
ENGL 261	Survey of American Literature I-GTAH2	3
ENGL 262	Survey of American Literature II-GTAH2	3
Writing		
ENGL 250	Introduction to Creative Writing	3
Frameworks		
ENGL 210	Introduction to Literary Studies	3
Foreign Language		
Select two consecutive classes in the same foreign language		6
Total Semester Credit Hours		**24**

Program Specific Degree Requirements

(59 semester hours, must pass each course with a grade of "C" or better and maintain a 2.80 cumulative GPA or higher in coursework in this area.)

- 2.80 cumulative GPA or higher in all CMU coursework.
- All EDUC prefix courses must be completed with a grade of "B" or better.
- Students must pass the PRAXIS II exam in the content area prior to beginning the internship. Also, all other coursework toward the degree must be successfully completed prior to the internship.
- A grade of "C" or better must be earned in all required foundation and major courses, unless otherwise stated.

Code	Title	Semester Credit Hours
Texts: Secondary Education Cornerstones		
ENGL 355	Shakespeare	3
ENGL 365	Literature for Young Adults	3
ENGL 494	Seminar in Literature	3
SPCH 307	Professional Presentations	3
Texts: Upper Division English Electives		
Select two courses. Any course not chosen can be used for Texts, Writing, and Frameworks: English Elective.		6
ENGL 401	Studies in American Literature I	
ENGL 403	Studies in British and Commonwealth Literature I	
ENGL 402	Studies in American Literature II	
ENGL 404	Studies in British and Commonwealth Literature II	
ENGL 444	Studies in Identity	
Frameworks: Secondary Education Cornerstones		
ENGL 421	Introduction to Literary Theory and Criticism	3
ENGL 451	Understanding and Using English Grammar	3
ENGL 491	Composition Theory and Practice	3
Texts, Writing, and Frameworks: English Electives		
Select one course.		3
ENGL 131	Western World Literature I-GTAH2	
ENGL 132	Western World Literature II-GTAH2	
ENGL 150	Introduction to Literature-GTAH2	
ENGL 219	Introduction to Professional Writing-GTCO3	
ENGL 222	Mythology-GTAH2	
ENGL 240	Children's Literature	
ENGL 325	Writing for Engineers	
ENGL 320	Report and Proposal Writing	
ENGL 330	Women in World Thought and Literature	
ENGL 335	The Bible as Literature	
ENGL 343	Language Systems and Linguistic Diversity	
ENGL 380	Memoir and Creative Non-Fiction	
ENGL 381	Creative Writing: Fiction	
ENGL 382	Creative Writing: Crafting Fiction	
ENGL 383	Creative Writing: Poetry	
ENGL 384	The Art of the Essay	
ENGL 385	Technical and Professional Writing	
ENGL 386	Roots of Modern Rhetoric	
ENGL 388	Creative Writing: Crafting Poetry	
ENGL 389	Screenwriting	
ENGL 390	Introduction to Film Studies	
ENGL 394	Technical and Professional Writing Topics	
ENGL 423	Genre Studies	
ENGL 425	Scientific Writing	
ENGL 440	History of the English Language	
Total Semester Credit Hours		**30**

Code	Title	Semester Credit Hours
Secondary Education Requirements [2,3]		
EDUC 115	What It Means To Be An Educator	1
EDUC 215	Teaching as a Profession	1
EDUC 342	Pedagogy and Assessment: Secondary and K-12	3
EDUC 343	Teaching to Diversity	3
EDUC 442	Integrating Literacy Across the Curriculum: Secondary and K-12 Art	3
EDUC 475	Classroom Management for K-12 Educators	1

EDUC 480	Methods and Topics in Secondary Teaching	3
EDUC 480A	Methods of Teaching Secondary English [4]	2
EDUC 499G	Teaching Internship and Colloquia: Secondary	12
Praxis II Exam Passed		
Total Semester Credit Hours		**29**

[1] ENGL 494 must be taken after 60 semester hours have been accumulated. A student must take the seminar in their junior year.
[2] Must pass courses with a grade of "B" or better.
[3] Program Requirements: ENGL 111, ENGL 112, PSYC 233, EDUC 115 and EDUC 215 (all with a grade of "B" or better) and formal acceptance to the Teacher Education Program.
[4] This course is only offered in the fall semester. It may be taken with either the 300-level or 400-level EDUC courses but must be taken before the student teaching semester.

All EDUC prefix courses listed above must be completed with a grade of B or better to progress through the program sequence. Students must PASS the PRAXIS II exam in the content area prior to commencing the internship. Also, ALL other coursework toward the degree must be successfully completed prior to the internship.

Suggested Course Plan

Suggested Course Sequencing for Spring Interns

First Year

Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
MATH 110	Mathematical Investigations-GTMA1	3
Foundation Course - Foreign Language		3
PSYC 233	Human Growth and Development-GTSS3	3
Essential Learning - History		3
KINE 100	Health and Wellness	1
	Semester Credit Hours	**16**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
ENGL 250	Introduction to Creative Writing	3
Foundation Course - Foreign Language		3
Essential Learning - Fine Arts		3
Essential Learning - Natural Science with Lab		4
	Semester Credit Hours	**16**

Second Year

Fall Semester		
ENGL 261	Survey of American Literature I-GTAH2	3
ENGL 254	Survey of English Literature I-GTAH2	3
Essential Learning - Social and Behavioral Science		3
Essential Learning - Humanities		3
EDUC 115	What It Means To Be An Educator	1
KINA Activity		1
English Elective		3
	Semester Credit Hours	**17**
Spring Semester		
ENGL 262	Survey of American Literature II-GTAH2	3
ENGL 255	Survey of English Literature II-GTAH2	3
ENGL 210	Introduction to Literary Studies	3
Essential Learning - Natural Science		3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
	Semester Credit Hours	**16**

Third Year

Fall Semester		
ENGL 421	Introduction to Literary Theory and Criticism	3
ENGL 451	Understanding and Using English Grammar	3
Upper Division English Elective		3
Upper Division Literature Elective		3
SPCH 307	Professional Presentations	3
EDUC 215	Teaching as a Profession	1
	Semester Credit Hours	**16**
Spring Semester		
EDUC 342	Pedagogy and Assessment: Secondary and K-12	3
EDUC 343	Teaching to Diversity	3
ENGL 355	Shakespeare	3
ENGL 365	Literature for Young Adults	3
ENGL 491	Composition Theory and Practice	3
	Semester Credit Hours	**15**

Fourth Year

Fall Semester		
ENGL 494	Seminar in Literature	3
EDUC 442	Integrating Literacy Across the Curriculum: Secondary and K-12 Art	3
EDUC 475	Classroom Management for K-12 Educators	1
EDUC 497		3
EDUC 497A		2
	Semester Credit Hours	**12**
Spring Semester		
EDUC 499G	Teaching Internship and Colloquia: Secondary	12
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**120**

Suggested Course Sequencing for Fall Interns

First Year

Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
MATH 110	Mathematical Investigations-GTMA1	3
PSYC 233	Human Growth and Development-GTSS3	3
KINE 100	Health and Wellness	1
Essential Learning - History		3
Foundation Course - Foreign Language		3
	Semester Credit Hours	**16**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
ENGL 250	Introduction to Creative Writing	3
EDUC 115	What It Means To Be An Educator	1
Foundation Course - Foreign Language		3
Essential Learning - Fine Arts		3
Essential Learning - Natural Science with Lab		4
	Semester Credit Hours	**17**

Second Year

Fall Semester		
ENGL 210	Introduction to Literary Studies	3
ENGL 254	Survey of English Literature I-GTAH2	3
ENGL 261	Survey of American Literature I-GTAH2	3
ENGL 262	Survey of American Literature II-GTAH2	3
EDUC 215	Teaching as a Profession	1
Essential Learning - Social and Behavioral Science		3
Essential Learning - Humanities		3
	Semester Credit Hours	**19**
Spring Semester		
ENGL 255	Survey of English Literature II-GTAH2	3

ENGL 365	Literature for Young Adults	3
ESSL 200	Essential Speech	1
ESSL 290	Maverick Milestone	3
Essential Learning - Natural Science		3
KINA Activity		1
	Semester Credit Hours	**14**
Third Year		
Fall Semester		
ENGL 421	Introduction to Literary Theory and Criticism	3
ENGL 451	Understanding and Using English Grammar	3
SPCH 307	Professional Presentations	3
Upper Division English Elective		3
English Elective		3
	Semester Credit Hours	**15**
Spring Semester		
EDUC 342	Pedagogy and Assessment: Secondary and K-12	3
EDUC 343	Teaching to Diversity	3
Upper Division English Elective		3
ENGL 355	Shakespeare	3
ENGL 491	Composition Theory and Practice	3
	Semester Credit Hours	**15**
Fourth Year		
Fall Semester		
EDUC 442	Integrating Literacy Across the Curriculum: Secondary and K-12 Art	3
EDUC 475	Classroom Management for K-12 Educators	1
EDUC 480	Methods and Topics in Secondary Teaching	3
EDUC 480A	Methods of Teaching Secondary English	2
ENGL 494	Seminar in Literature	3
	Semester Credit Hours	**12**
Spring Semester		
EDUC 499G	Teaching Internship and Colloquia: Secondary	12
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**120**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

English (BA)

Degree: Bachelor of Arts
Major: English
Program Code: 3210

The English Program offers concentrations leading to a Bachelor of Arts in English and Secondary Education. The skills a student develops as an English major, such as writing, editing, problem solving, and critical thinking and analysis, are highly prized by employers in nearly every profession. The English Program is proud of what it offers – cultural experiences, unique and interesting courses and instruction, committed faculty and support staff, and a desire to provide the best liberal arts education possible.

Many occupations require individuals who can write and speak well, solve problems, learn new information quickly, and work well with others on a team. This means that English graduates use their education in a wide variety of fields, and your future career may relate more to your personal career interests, work values, and transferable skills than anything specific to the content of your major. Who hires English Majors? Book publishers, magazines, arts organizations, political offices, large corporations, radio/television stations, advertising agencies, social service agencies, chambers of commerce, research institutions, marketing consultants, newspapers, greeting card publishers, law firms, public interest organizations, consumer action groups, health organizations, educational institutions, literary agencies, theaters, printing firms, high tech firms, tutoring services, public and corporate libraries, government agencies, and public relations firms.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Express themselves effectively in a variety of forms. (Specialized Knowledge)
2. Support interpretive claims about a variety of texts. (Critical Thinking)
3. Identify the salient features of literary texts from a broad range of English and American literary periods. (Specialized Knowledge)
4. Employ knowledge of literary traditions to produce imaginative writing. (Communication Fluency/Applied Learning)

5. Select and evaluate information to assist in problem-solving. (Information Literacy/Critical Thinking)
6. Demonstrate knowledge of the history or culture of the English language (Specialized Knowledge)
7. Explore cultural and historical lessons from literature and apply the lessons to contemporary events and cultural concerns (Personal and Social Responsibility)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 110	Mathematical Investigations-GTMA1	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [2]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

[1] Must receive a grade of “C” or better and must be completed by the time the student has 60 semester hours.

[2] One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(24 semester hours, must pass each course with a grade of “C” or higher.)

Code	Title	Semester Credit Hours
Texts		
ENGL 254	Survey of English Literature I-GTAH2	3
ENGL 255	Survey of English Literature II-GTAH2	3
ENGL 261	Survey of American Literature I-GTAH2	3
ENGL 262	Survey of American Literature II-GTAH2	3
Writing		
ENGL 250	Introduction to Creative Writing	3
Frameworks		
ENGL 210	Introduction to Literary Studies	3
Foreign Language		
Select two consecutive classes in the same foreign language		6
Total Semester Credit Hours		**24**

Program Specific Requirements

(30 semester hours, must pass each course with a grade of "C" or higher and maintain a 2.0 cumulative GPA or higher in coursework in this area.

Code	Title	Semester Credit Hours
Texts		
Cultural Context: Early (Select One)		*3*
ENGL 355	Shakespeare	
ENGL 401	Studies in American Literature I	
ENGL 403	Studies in British and Commonwealth Literature I	
Cultural Context: Late (Select One)		*3*
ENGL 402	Studies in American Literature II	
ENGL 404	Studies in British and Commonwealth Literature II	
Diversity in Form, Identity, and Culture (Select One)		*3*
ENGL 330	Women in World Thought and Literature	
ENGL 335	The Bible as Literature	
ENGL 365	Literature for Young Adults	
ENGL 390	Introduction to Film Studies	
ENGL 396	Topics	
ENGL 444	Studies in Identity	
Writing		
Select three courses:		9
ENGL 320	Report and Proposal Writing	
ENGL 325	Writing for Engineers	
ENGL 380	Memoir and Creative Non-Fiction	
ENGL 381	Creative Writing: Fiction	
ENGL 382	Creative Writing: Crafting Fiction	
ENGL 383	Creative Writing: Poetry	
ENGL 384	The Art of the Essay	
ENGL 385	Technical and Professional Writing	
ENGL 388	Creative Writing: Crafting Poetry	
ENGL 389	Screenwriting	
ENGL 423	Genre Studies	
ENGL 425	Scientific Writing	
ENGL 496	Topics	
Frameworks		
ENGL 421	Introduction to Literary Theory and Criticism	3
Select one of the following:		3
ENGL 386	Roots of Modern Rhetoric	
ENGL 491	Composition Theory and Practice	
Select one of the following:		3
ENGL 343	Language Systems and Linguistic Diversity	
ENGL 440	History of the English Language	
ENGL 451	Understanding and Using English Grammar	
Capstone Experience		
Select one of the following:		3
ENGL 492	Seminar in Writing	
ENGL 494	Seminar in Literature	
ENGL 499	Internship	
Total Semester Credit Hours		**30**

[1] ENGL 494 must be taken after 90 semester hours have been accumulated. A student may take the seminar in the junior year, but must take it again in the senior year. The junior-year class will count as an elective.

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours, including 40 upper division hours. 29 semester hours; 10 hours of upper division may be needed.

Code	Title	Semester Credit Hours
Select electives		29
Total Semester Credit Hours		**29**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
MATH 110	Mathematical Investigations-GTMA1	3
Foundation Course - Foreign Language		3
Essential Learning - Social and Behavioral Science		3
Essential Learning - History		3
KINE 100	Health and Wellness	1
	Semester Credit Hours	**16**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
ENGL 250	Introduction to Creative Writing	3
Foundation Course - Foreign Language		3
Essential Learning - Fine Arts		3
Essential Learning - Natural Science with Lab		4
	Semester Credit Hours	**16**
Second Year		
Fall Semester		
ENGL 261	Survey of American Literature I-GTAH2	3
ENGL 254	Survey of English Literature I-GTAH2	3
Essential Learning - Social and Behavioral Science		3

Essential Learning - Humanities		3
ENGL 210	Introduction to Literary Studies	3
KINA Activity		1
	Semester Credit Hours	**16**
Spring Semester		
ENGL 262	Survey of American Literature II-GTAH2	3
ENGL 255	Survey of English Literature II-GTAH2	3
Essential Learning - Natural Science		3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
General Elective		3
	Semester Credit Hours	**16**
Third Year		
Fall Semester		
Cultural Context: Early Elective (Select One)		3
ENGL 401	Studies in American Literature I	
ENGL 403	Studies in British and Commonwealth Literature I	
ENGL 355	Shakespeare	
ENGL 386 or ENGL 491	Roots of Modern Rhetoric or Composition Theory and Practice	3
Diversity in Form, Identity, and Culture Elective [1]		3
Writing Elective [2]		3
General Elective		3
	Semester Credit Hours	**15**
Spring Semester		
ENGL 402 or ENGL 404	Studies in American Literature II or Studies in British and Commonwealth Literature II	3
ENGL 421	Introduction to Literary Theory and Criticism	3
Writing Elective [2]		3
General Elective		6
	Semester Credit Hours	**15**
Fourth Year		
Fall Semester		
Select one of the following:		3
ENGL 343	Language Systems and Linguistic Diversity	
ENGL 440	History of the English Language	
ENGL 451	Understanding and Using English Grammar	
Writing Elective [2]		3
Upper Division General Elective		4
General Elective		3
	Semester Credit Hours	**13**
Spring Semester		
Capstone Experience: Choose one:		3
ENGL 492	Seminar in Writing	
ENGL 494	Seminar in Literature	
ENGL 499	Internship	
Upper Division General Elective		6
General Elective		4
	Semester Credit Hours	**13**
	Total Semester Credit Hours	**120**

[1] Diversity in Form, Identity, and Culture elective options are: ENGL 330, ENGL 335, ENGL 365, ENGL 390, ENGL 396, and ENGL 444.

[2] Writing elective options are: ENGL 320, ENGL 325, ENGL 380, ENGL 381, ENGL 382, ENGL 383, ENGL 384, ENGL 385, ENGL 388, ENGL 389, ENGL 423, ENGL 425, and ENGL 496.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Writing, English (BA)

Degree: Bachelor of Arts
Major: English
Concentration: Writing
Program Code: 3215

This program is no longer accepting new students.

The English Program offers concentrations leading to a Bachelor of Arts in Literature, Creative Writing, and Secondary Education. The skills a student develops as an English major, such as writing, editing, problem solving, and critical thinking and analysis, are highly prized by employers in nearly every profession. The English Program is proud of what it offers – cultural experiences, unique and interesting courses and instruction, committed faculty and support staff, and a desire to provide the best liberal arts education possible.

Many occupations require individuals who can write and speak well, solve problems, learn new information quickly, and work well with others on a team. This means that English graduates use their education in a wide variety of fields, and your future career may relate more to

your personal career interests, work values, and transferable skills than anything specific to the content of your major. Who hires English Majors? Book publishers, magazines, arts organizations, political offices, large corporations, radio/television stations, advertising agencies, social service agencies, chambers of commerce, research institutions, marketing consultants, newspapers, greeting card publishers, law firms, public interest organizations, consumer action groups, health organizations, educational institutions, literary agencies, theaters, printing firms, high tech firms, tutoring services, public and corporate libraries, government agencies, and public relations firms.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Express themselves effectively in a variety of forms. (Specialized Knowledge)
2. Support interpretive claims about a variety of texts. (Critical Thinking)
3. Identify the salient features of literary texts from a broad range of English and American literary periods. (Specialized Knowledge)
4. Employ knowledge of literary traditions to produce imaginative writing. (Communication Fluency/Applied Learning)
5. Use research to assist in problem-solving. (Critical Thinking)
6. Apply standard conventions of English grammar and punctuation and explain grammatical structures using relevant terminology. (Specialized Knowledge)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 110	Mathematical Investigations-GTMA1	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [2]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

[1] Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

[2] One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(24 semester hours, must pass each course with a grade of "C" or higher.)

Code	Title	Semester Credit Hours
ENGL 210	Introduction to Literary Studies	3
ENGL 250	Introduction to Creative Writing	3
ENGL 254	Survey of English Literature I-GTAH2	3
ENGL 255	Survey of English Literature II-GTAH2	3
ENGL 261	Survey of American Literature I-GTAH2	3
ENGL 262	Survey of American Literature II-GTAH2	3
Select two consecutive classes in the same foreign language [1]		6
Total Semester Credit Hours		**24**

[1] FLAS 114 & FLAS 115 will NOT fulfill this requirement.

Program Specific Degree Requirements

(30 semester hours, must pass each course with a grade of "C" or higher and maintain a 2.0 cumulative GPA or higher in coursework in this area.

Code	Title	Semester Credit Hours
English Core		
ENGL 421	Introduction to Literary Theory and Criticism	3
ENGL 494	Seminar in Literature [1]	3
Required Concentration Courses		
ENGL 386	Roots of Modern Rhetoric	3
ENGL 492	Seminar in Writing	3
ENGL 440	History of the English Language	3
or ENGL 451	Understanding and Using English Grammar	
Literary Backgrounds		
Early Literature		
Select one of the following courses:		3
ENGL 301	Classical Greek and Latin Literature	
ENGL 311	English Medieval Literature	
ENGL 313	English Renaissance Literature	
ENGL 335	The Bible as Literature	
ENGL 355	Shakespeare	
ENGL 470	18th Century British Literature	
Later Literature		
Select one of the following courses:		3
ENGL 314	American Literature to 1830	
ENGL 315	American Literature 1830-1870	
ENGL 316	American Literature 1870-1900	
ENGL 330	Women in World Thought and Literature	
ENGL 435	American Literature 1900-1945	
ENGL 436	American Literature 1945-Present	
ENGL 438	Ethnic Experiences in U.S. Literature	
ENGL 471	British Romanticism	
ENGL 475	Victorian Literature	
ENGL 478	20th Century British Literature	
Writing Concentration Electives		
Select 9 semester hours of the following:		9
ENGL 380	Memoir and Creative Non-Fiction	
ENGL 381	Creative Writing: Fiction	
ENGL 382	Creative Writing: Crafting Fiction	
ENGL 383	Creative Writing: Poetry	
ENGL 384	The Art of the Essay	
ENGL 385	Technical and Professional Writing	
ENGL 388	Creative Writing: Crafting Poetry	
ENGL 389	Screenwriting	
ENGL 392	Introduction to Copy Editing	
ENGL 396	Topics	
ENGL 496	Topics	
Total Semester Credit Hours		**30**

[1] ENGL 494 must be taken after 90 semester hours have been accumulated. A student may take the seminar in the junior year, but must take it again in the senior year. The junior-year class will count as an elective.

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours, including 40 upper division hours. 29 semester hours; 10 hours of upper division may be needed.

Code	Title	Semester Credit Hours
Select electives		29
Total Semester Credit Hours		**29**

Suggested Course Plan

First Year

Fall Semester		Semester Credit Hours
ENGL 111	English Composition I-GTCO1	3
MATH 110	Mathematical Investigations-GTMA1	3

Foundation Course - Foreign Language		3
Essential Learning - Social and Behavioral Science		3
Essential Learning - History		3
KINE 100	Health and Wellness	1
	Semester Credit Hours	**16**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
ENGL 250	Introduction to Creative Writing	3
Foundation Course - Foreign Language		3
Essential Learning - Fine Arts		3
Essential Learning - Natural Science with Lab		4
	Semester Credit Hours	**16**
Second Year		
Fall Semester		
ENGL 261	Survey of American Literature I-GTAH2	3
ENGL 254	Survey of English Literature I-GTAH2	3
Essential Learning - Social and Behavioral Science		3
Essential Learning - Humanities		3
ENGL 210	Introduction to Literary Studies	3
KINA Activity		1
	Semester Credit Hours	**16**
Spring Semester		
ENGL 262	Survey of American Literature II-GTAH2	3
ENGL 255	Survey of English Literature II-GTAH2	3
Upper Division Writing Elective		3
Essential Learning - Natural Science		3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
	Semester Credit Hours	**16**
Third Year		
Fall Semester		
ENGL 386	Roots of Modern Rhetoric	3
ENGL 355	Shakespeare	3
ENGL 440 or ENGL 451	History of the English Language or Understanding and Using English Grammar	3
Upper Division Writing Elective		3
Elective		3
	Semester Credit Hours	**15**
Spring Semester		
Elective (4 courses)		12
Upper Division Elective [1]		3
	Semester Credit Hours	**15**
Fourth Year		
Fall Semester		
ENGL 384	The Art of the Essay	3
ENGL 492	Seminar in Writing	3
ENGL 421	Introduction to Literary Theory and Criticism	3
Upper Division Elective		3
Elective		3
	Semester Credit Hours	**15**
Spring Semester		
ENGL 494	Seminar in Literature	3
Upper Division Elective [2]		3
Upper Division Elective		3
Elective		3
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**121**

[1] ENGL 385 recommended.
[2] ENGL 383 recommended.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

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Graduation Process

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- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
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- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

English (Minor)

Minor: English
Program Code: M242

The English minor should be of interest to students who want to broaden their backgrounds in the liberal arts as well as to those planning careers in which experience in literature and writing is useful, such as law, journalism, advertising, theatre, business, public service, or graduate study in other academic subjects.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print

Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(18 semester hours)

- Students may NOT count ENGL 111 and ENGL 112 toward the English minor.

Code	Title	Semester Credit Hours
Required Courses		
Complete 18 hours (6 courses) in English, 6 hours of which must be upper division		18
Total Semester Credit Hours		**18**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the "Intent to Graduate" form.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Editing and Technical Communication (Professional Certificate)

Award: Professional Certificate
Program of Study: Editing and Technical Communication
Program Code: 1720

The Editing and Technical Communication certificate offers students a valuable and focused skill set that combines copy editing, expertise in producing technical documents, and common technology used in the field. Every occupation requires individuals who can write and speak well, solve problems, learn new information quickly, and work well with others on a team. More specifically, many fields and occupations require quantitative analysis, but they also need to produce correct, well-written, and audience-appropriate documents. A certificate in Editing and Technical Communication prepares students to support and produce these documents.

Who would hire someone with a certificate in Editing and Technical Communication? First, any organization that produces documents to read, from every conceivable kind of publisher to individuals and groups that produce online content. Second, technical fields—e.g. engineering, science, health sciences, computer software, etc.—are constantly producing documents and presentations, and these forms of communication need editors, writers, and presenters.

For more information on what you can do with this major visit Career Services' What to Do with a Major? resource.

All CMU certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, critical thinking, and personal and social responsibility. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Use "common industry standard" writing and design software programs (Specialized Knowledge)
2. Produce and edit a range of technical documents using a variety of style guides and programs (Applied Knowledge)
3. Apply standard written conventions of English grammar and punctuation (Specialized Knowledge)
4. Navigate ethical dilemmas within the field of Editing and Technical Communication (Ethical Problem Solving)
5. Communicate findings, expectations, and questions through drafts and final products to a variety of stakeholders in written and oral means (Communication Fluency)
6. Apply knowledge of the writing process to professional communication genres (i.e. proposals, grant project, etc.), rhetorical situations, and audiences (Critical Thinking).

7. Identify and improve documents written by others under appropriate constraints (i.e. large volumes of text, limited time) (Critical Thinking)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU Professional Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Primarily 300-400 level courses.
- At least fifty percent of the credit hours must be taken at CMU.
- 2.00 cumulative GPA or higher in all CMU coursework.
- A grade lower than “C” in the program of study will not be counted toward meeting the certificate’s requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(18 semester hours)

Code	Title	Semester Credit Hours
ENGL 392	Introduction to Copy Editing [1]	3
ENGL 499	Internship	3
Writing		
Select three of the following:		9
ENGL 219	Introduction to Professional Writing-GTCO3 [1]	
ENGL 320	Report and Proposal Writing [1]	
ENGL 325	Writing for Engineers	
ENGL 385	Technical and Professional Writing [1]	
ENGL 425	Scientific Writing [1]	
Technology		
Select one of the following:		3
ABUS 114	Digital Layout	
CSCI 106	Web Page Design I	
MASS 352	Print Design and Production for Editors [2]	
Total Semester Credit Hours		**18**

1 These courses have a prerequisite of ENGL 112, which also requires completion of ENGL 111.

2 MASS 352, Design and Editing for Print, has a prerequisite of MASS 213, Introduction and Media Writing and Reporting, which is not a requirement of this program.

Suggested Course Plan

Third Year		
Fall Semester		**Semester Credit Hours**
ENGL 392	Introduction to Copy Editing	3
	Semester Credit Hours	**3**
Spring Semester		
Writing Courses		6
	Semester Credit Hours	**6**
Fourth Year		
Fall Semester		
Writing Course		3
Technology Course		3
	Semester Credit Hours	**6**
Spring Semester		
ENGL 499	Internship	3
	Semester Credit Hours	**3**
	Total Semester Credit Hours	**18**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student’s responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar’s Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar’s Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the “Intent to Graduate” form to the Registrar’s Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's “Intent to Graduate” does not automatically move to a later graduation date.

Environmental Science and Technology

Program Description

The goal of the Environmental Science and Technology program is to educate students in the science, protection and restoration of our natural resources—air, water, land and ecosystems. Students develop a foundation in biology, chemistry, mathematics, statistics and communication skills, then apply this knowledge to the study and solution of environmental problems. Theory is balanced with hands-on practice, which includes considerable work outdoors in the local environment during lab periods. Individual and group projects are a key component of courses and students participate in work performed in partnership with the Bureau of Land Management, U.S. Forest Service, Colorado National Monument and other organizations. Students must choose either the Pollution Monitoring and Control option, which focuses on pollution prevention as well as investigation, monitoring and cleanup, or the Ecosystem Restoration option, which focuses on protecting and restoring natural resources.

The Environmental Science and Technology minor is a valuable asset to students who are majoring in biology, chemistry or geology and planning to work in an environmental profession.

Students majoring in Environmental Science and Technology may also be interested in the certificate in Sustainability Practices (p. 777) and the minor in Watershed Science (p. 826).

Many environmental scientists use geographic information systems in their work. Students can learn this technology by pursuing the certificate in Geographic Information Systems and Technology (p. 458).

Contact Information

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Programs of Study Bachelors/Minors

- Environmental Science and Technology (BS) (p. 431)
- Environmental Science and Technology (Minor) (p. 436)

Certificates

- Sustainability Practices (Professional Certificate) (p. 437)

Environmental Science and Technology (BS)

Degree: Bachelor of Science
Major: Environmental Science and Technology
Program Code: 3443

We educate students in the science, protection, and restoration of our natural resources—air, water, land, and ecosystems. Students develop a foundation in biology, chemistry, mathematics, statistics,

and communication skills, then apply this knowledge to the study and solution of environmental problems. We balance theory with hands-on practice, and include considerable work outdoors in our spectacular local environment. Students choose either the Pollution Monitoring & Control option, which focuses on pollution prevention as well as investigation and cleanup, or the Ecosystem Restoration option, which focuses on strategies for managing natural resources. Students complete the program with our Capstone course, in which they work in small groups on real-life projects for an off-campus client. Each group plans and implements a project and presents the final results to its client. In addition to providing students with a chance to showcase the knowledge and abilities they have acquired through their studies, students learn how to deal with the challenges of real-life project work.

Our graduates take positions as environmental professionals with consulting firms, industry, and government agencies (e.g., U.S. Bureau of Land Management, U.S. Geological Survey, and U.S. Army Corps of Engineers). Some continue their studies in graduate school (e.g., Colorado School of Mines, Colorado State University, University of Denver).

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Define terminology, concepts, theories, and practices in environmental science. (specialized knowledge)
2. Find information relevant to environmental science, evaluate information critically, and apply the information appropriately and effectively to specific purposes (information literacy, critical thinking).
3. Demonstrate the ability to design an environmental study. (quantitative fluency, critical thinking, applied learning)
4. Demonstrate the ability to use appropriate tools, technology, and methods for measuring and analyzing environmental data. (quantitative fluency, applied learning)
5. Demonstrate the ability to analyze quantitative environmental data, effectively translate data into graphs or tables, and interpret the results. (quantitative fluency)
6. Construct an organized argument (oral and written) supported by current research on a technical issue in environmental science appropriate for a specialized audience. (communication fluency)
7. Complete a field-based project that evaluates and proposes a logical solution for an environmental issue or need by effectively synthesizing applicable concepts from environmental science and related disciplines. (applied learning, critical thinking, personal and social responsibility)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 113	College Algebra-GTMA1 [2,3]	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3

Social and Behavioral Sciences	
Select one Social and Behavioral Sciences course	3
Select one Social and Behavioral Sciences course	3
Fine Arts	
Select one Fine Arts course	3
Natural Sciences [4]	
Select one Natural Sciences course [5]	3
Select one Natural Sciences course with a lab	4
Total Semester Credit Hours	**31**

1 Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.
2 This is a 4 credit course. 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.
3 Students who plan to take Calculus I-GTMA1 (MATH 151) should take Precalculus Mathematics-GTMA1 (MATH 119) or Algebra for Calculus-GTMA1 (MATH 119A) and Trigonometry for Calculus (MATH 119B) instead of College Algebra-GTMA1 (MATH 113).
4 7 semester hours, one course must include a lab.
5 Students who did not pass the CHEM 131 placement exam should take CHEM 111.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

1 Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(12-14 semester hours, must pass all courses with a grade of "C" or higher)

Code	Title	Semester Credit Hours
CHEM 131 & 131L	General Chemistry I-GTSC1 and General Chemistry Laboratory I-GTSC1	5
Select one of the following options: [1]		4-5
CHEM 123	Introduction to Environmental Chemistry	
CHEM 132 & 132L	General Chemistry II-GTSC1 and General Chemistry Laboratory II-GTSC1	
Introduction to Environmental Science		
Select one of the following options:		3-4
Option 1:		
ENVS 104	Environmental Science: Global Sustainability	
Option 2:		
ENVS 101	Introduction to Environmental Science-GTSC2	
ENVS 105	Readings in Environmental Science	
Total Semester Credit Hours		**12-14**

1 CHEM 132/CHEM 132L is recommended for students who plan to attend graduate school.

Program Specific Degree Requirements

(54 semester hours, must pass all courses with a grade of "C" or higher)

Code	Title	Semester Credit Hours
Core Environmental Science Courses		
ENVS 204	Introduction to Ecosystem Management	3
ENVS 204L	Introduction to Ecosystem Management Laboratory	1
ENVS 221	Science and Technology of Pollution Control	3
ENVS 221L	Science and Technology of Pollution Control Laboratory	1
ENVS 331	Water Quality	3
ENVS 331L	Water Quality Laboratory	1
ENVS 377	Systems Thinking in Environmental Science	3
ENVS 492	Capstone in Environmental Science and Technology	3
STAT 200	Probability and Statistics-GTMA1	3
Select one of the following courses:		3-5
MATH 131	Applied Calculus-GTMA1	
MATH 151	Calculus I-GTMA1	
ENVS 475	Experimental Design and Statistical Analysis in Environmental Science	
Environmental Science Options		
Select one of the following options:		14-15
Option 1: Pollution Monitoring and Control (14 credits):		
ENVS 340	Applied Atmospheric Science	
ENVS 410	Environmental Regulatory Compliance	
ENVS 420	Pollution Investigation & Monitoring	
ENVS 420L	Pollution Investigation & Monitoring Laboratory	
GEOL 111	Principles of Physical Geology-GTSC1	
GEOL 111L	Principles of Physical Geology Laboratory-GTSC1	
Option 2: Ecosystem Restoration (15 credits):		
ENVS 312	Soil Science and Sustainability	
ENVS 312L	Soil Science and Sustainability Laboratory	
ENVS 455	Restoration Ecology	
ENVS 455L	Restoration Ecology Laboratory	
POLS 488	Environmental Politics and Policy	
BIOL 107	Principles of Plant Biology [1]	
BIOL 107L	Principles of Plant Biology Laboratory [1]	
Total Semester Credit Hours		**38-41**

1 BIOL 107/BIOL 107L have BIOL 105/BIOL 105L as prerequisites. It is suggested students take BIOL 105/BIOL 105L to fulfill their Natural

Sciences with Lab Essential Learning requirement or ask the BIOL 107 instructor for permission to register without these prerequisites.

Code	Title	Semester Credit Hours
Restricted Electives		
Select from the following additional ENVS or GIST courses to bring total credits for this section to 54:		12-16
ENVS 212	Environmental Health and Safety	
ENVS 301	Environmental Project Management	
ENVS 312	Soil Science and Sustainability	
ENVS 312L	Soil Science and Sustainability Laboratory	
ENVS 315	Mined Land Rehabilitation	
ENVS 321	Environmental Risk Analysis	
ENVS 337	Stream Biomonitoring	
ENVS 337L	Stream Biomonitoring Laboratory	
ENVS 340	Applied Atmospheric Science	
ENVS 350	Ecology and Management of Shrublands and Grasslands	
ENVS 350L	Ecology and Management of Shrublands and Grasslands Laboratory	
ENVS 354	Forest Ecology and Management	
ENVS 360	Fire Ecology	
ENVS 360L	Fire Ecology Laboratory	
ENVS 370	Renewable Energy	
ENVS 373	Climate Change Adaptation	
ENVS 374	Sustainable Building	
ENVS 376	Ecological Design and Technology	
ENVS 378	Permaculture Design	
ENVS 378L	Permaculture Design Laboratory	
ENVS 394	Natural Resources of the West	
ENVS 396	Topics	
ENVS 413	Environmental Fate and Transport of Contaminants	
ENVS 420	Pollution Investigation & Monitoring	
ENVS 420L	Pollution Investigation & Monitoring Laboratory	
ENVS 431	Water and Wastewater Treatment	
ENVS 433	Restoration of Aquatic Systems	
ENVS 455	Restoration Ecology	
ENVS 455L	Restoration Ecology Laboratory	
ENVS 460	Fire Management	
ENVS 460L	Fire Management Laboratory	
ENVS 475	Experimental Design and Statistical Analysis in Environmental Science	
ENVS 496	Topics	
ENVS 497	Structured Research	
GIST 332	Introduction to Geographic Information Systems	
GIST 332L	Introduction to Geographic Information Systems Laboratory	
Total Semester Credit Hours		**12-16**

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours. 16-17 semester hours

Code	Title	Semester Credit Hours
MATH 113	College Algebra-GTMA1	1
Select additional electives		15-16
Total Semester Credit Hours		**16-17**

Suggested Course Plan
Pollution Monitoring and Control

While the sequencing below culminates in a total of 119-122 semester credit hours, students must complete a minimum of 120 semester credit hours as required for completion of this degree, including satisfactory completion of all required courses. Plan to complete requirements with varying hour options accordingly.

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
MATH 113	College Algebra-GTMA1	4
ENVS 104	Environmental Science: Global Sustainability	3
Essential Learning - Natural Science with Lab		4
KINE 100	Health and Wellness	1
	Semester Credit Hours	**15**
Spring Semester		
GEOL 111 & 111L	Principles of Physical Geology-GTSC1 and Principles of Physical Geology Laboratory-GTSC1	4
ENGL 112	English Composition II-GTCO2	3
STAT 200	Probability and Statistics-GTMA1	3
Essential Learning - Social and Behavioral Science		3
Essential Learning - Natural Science without lab (Students who did not pass the CHEM 131 placement exam should take CHEM 111)		3
	Semester Credit Hours	**16**
Second Year		
Fall Semester		
CHEM 131 & 131L	General Chemistry I-GTSC1 and General Chemistry Laboratory I-GTSC1	5
ENVS 204 & 204L	Introduction to Ecosystem Management and Introduction to Ecosystem Management Laboratory	4
Restricted Elective		1
Essential Learning - Fine Arts		3
KINA Activity		1
	Semester Credit Hours	**14**
Spring Semester		
ENVS 221 & 221L	Science and Technology of Pollution Control and Science and Technology of Pollution Control Laboratory	4
CHEM 132 & 132L or CHEM 123	General Chemistry II-GTSC1 or Introduction to Environmental Chemistry	4-5
MATH 131 or MATH 151	Applied Calculus-GTMA1 or Calculus I-GTMA1	4-5
Essential Learning - Social and Behavioral Sciences		3
	Semester Credit Hours	**15-17**

Third Year		
Fall Semester		
Restricted Electives		3
ENVS 331 & 331L	Water Quality and Water Quality Laboratory	4
Essential Learning - Humanities		3
ESSL 200	Essential Speech	1
ESSL 290	Maverick Milestone	3
	Semester Credit Hours	**14**
Spring Semester		
ENVS 340	Applied Atmospheric Science	3
ENVS 410	Environmental Regulatory Compliance	3
Restricted Electives		5
Essential Learning - History		3
	Semester Credit Hours	**14**
Fourth Year		
Fall Semester		
Restricted Electives		8
General Electives		7-8
	Semester Credit Hours	**15-16**
Spring Semester		
ENVS 377	Systems Thinking in Environmental Science	3
ENVS 492	Capstone in Environmental Science and Technology	3
ENVS 420 & 420L	Pollution Investigation & Monitoring and Pollution Investigation & Monitoring Laboratory	4
General Electives		6
	Semester Credit Hours	**16**
	Total Semester Credit Hours	**119-122**

Ecosystem Restoration

While the sequencing below culminates in a total of 119-122 semester credit hours, students must complete a minimum of 120 semester credit hours as required for completion of this degree. Plan to complete requirements with varying hour options accordingly.

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
MATH 113	College Algebra-GTMA1	4
ENVS 104	Environmental Science: Global Sustainability	3
Essential Learning - Natural Science with Lab		4
KINE 100	Health and Wellness	1
	Semester Credit Hours	**15**
Spring Semester		
BIOL 107 & 107L	Principles of Plant Biology and Principles of Plant Biology Laboratory	4
ENGL 112	English Composition II-GTCO2	3
STAT 200	Probability and Statistics-GTMA1	3
Essential Learning - Social and Behavioral Science		3
Essential Learning - Natural Science without lab (Students who did not pass the CHEM 131 placement exam should take CHEM 111)		3
	Semester Credit Hours	**16**
Second Year		
Fall Semester		
CHEM 131 & 131L	General Chemistry I-GTSC1 and General Chemistry Laboratory I-GTSC1	5
ENVS 204 & 204L	Introduction to Ecosystem Management and Introduction to Ecosystem Management Laboratory	4
Restricted Elective		1
Essential Learning - Fine Arts		3
KINA Activity		1
	Semester Credit Hours	**14**
Spring Semester		
ENVS 221 & 221L	Science and Technology of Pollution Control and Science and Technology of Pollution Control Laboratory	4
CHEM 132 & 132L or CHEM 123	General Chemistry II-GTSC1 or Introduction to Environmental Chemistry	4-5
MATH 131 or MATH 151	Applied Calculus-GTMA1 or Calculus I-GTMA1	4-5
Essential Learning - Social and Behavioral Sciences		3
	Semester Credit Hours	**15-17**
Third Year		
Fall Semester		
ENVS 312 & 312L	Soil Science and Sustainability and Soil Science and Sustainability Laboratory	4
ENVS 331 & 331L	Water Quality and Water Quality Laboratory	4
Essential Learning - Humanities		3
ESSL 200	Essential Speech	1
ESSL 290	Maverick Milestone	3
	Semester Credit Hours	**15**
Spring Semester		
Restricted Electives		5
ENVS 377	Systems Thinking in Environmental Science	3
POLS 488	Environmental Politics and Policy	3
Essential Learning - History		3
	Semester Credit Hours	**14**
Fourth Year		
Fall Semester		
Restricted Electives		7
General Electives		7-8
	Semester Credit Hours	**14-15**
Spring Semester		
ENVS 492	Capstone in Environmental Science and Technology	3
ENVS 455 & 455L	Restoration Ecology and Restoration Ecology Laboratory	4
General Electives		9
	Semester Credit Hours	**16**
	Total Semester Credit Hours	**119-122**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Environmental Science and Technology (Minor)

Minor: Environmental Science and Technology
Program Code: M440

We educate students in the science, protection, and restoration of our natural resources—air, water, land, and ecosystems. We balance theory with hands-on practice, and include considerable work outdoors in our spectacular local environment. Individual and group projects are a key part of our courses. Our students have opportunities to take part in work done through partnerships with organizations such as the Colorado National Monument and the Bureau of Land Management.

The Environmental Science minor is an invaluable asset to students who are majoring in biology, chemistry, or geology and planning to work in an environmental profession.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(15 semester hours)

Code	Title	Semester Credit Hours
Select one of the following options: [1]		3-4
ENVS 104	Environmental Science: Global Sustainability	
ENVS 101 & ENVS 105	Introduction to Environmental Science-GTSC2 and Readings in Environmental Science	
Select courses from Environmental Science and Technology (ENVS) to bring total semester hours to 15 [2]		11-12
Total Semester Credit Hours		**14-16**

[1] Either ENVS 104 or ENVS 101/ENVS 105 may be taken for credit, but not both.

[2] At least 5 of the semester hours required for this minor must be upper division.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should

follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the “Intent to Graduate” form.

If a student’s petition for graduation is denied, it will be their responsibility to consult the Registrar’s Office regarding next steps.

Sustainability Practices (Professional Certificate)

Award: Professional Certificate
Program of Study: Sustainability Practices
Program Code: 1464

“Sustainability” is a way of living that meets the needs of the present without compromising the ability of future generations to meet their own needs. In order to achieve sustainability, we must examine our approach to energy, food, shelter, transportation, and other aspects of everyday life. Can we continue our current approach indefinitely? What changes need to occur to make our approach sustainable? What can we do to make those changes?

Through the Certificate in Sustainability Practices, students learn the principles of sustainability along with specific ways to implement them. Anyone seeking to understand and practice this approach will benefit from completion of the program. For some, the program can serve as a first step toward a more in-depth knowledge that may lead to a career. Earning this certificate helps professionals to improve their business practices and community leaders to understand trends in community planning. Any citizen will learn ways to improve the environment through their personal choices.

For more information on what you can do with this major, visit Career Services’ What to Do with a Major? resource.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU Professional Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Primarily 300-400 level courses.
- At least fifty percent of the credit hours must be taken at CMU.
- 2.00 cumulative GPA or higher in all CMU coursework.
- A grade lower than “C” in the program of study will not be counted toward meeting the certificate’s requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(9 semester hours, must earn a "C" or better in each course.)

Code	Title	Semester Credit Hours
Core Courses		
Select one of the following courses:		3
ENVS 101	Introduction to Environmental Science-GTSC2 [1]	
ENVS 104	Environmental Science: Global Sustainability [1]	
Total Semester Credit Hours		**3**

[1] Either ENVS 104 or ENVS 101 may be taken for credit, but not both.

Code	Title	Semester Credit Hours
Restricted Electives		
Select 6 hours of electives from the following list approved by department head:		6
ENVS 370	Renewable Energy	
or GEOL 370	Renewable Energy	
ENVS 374	Sustainable Building	
ENVS 376	Ecological Design and Technology	
ENVS 377	Systems Thinking in Environmental Science	
ENVS 378 & 378L	Permaculture Design and Permaculture Design Laboratory	
Total Semester Credit Hours		**6**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student’s responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar’s Office to evaluate progress towards a certificate and determine eligibility for graduation. Students

are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Exercise Science

Program Description

Students enrolled in this major should have a strong interest in the sciences as this program applies science to human function. The student will begin studies with science courses such as general chemistry and human anatomy and physiology. Continued studies will include courses such as exercise physiology, anatomical kinesiology, biomechanics, physical activity and aging, strength and conditioning, and sports nutrition, along with upper-division elective courses in kinesiology, biology, and/or chemistry. Exercise Science students frequently continue their studies for graduate or professional degrees at universities widely recognized as top programs in athletic training, exercise physiology, occupational therapy, physical therapy, and physician assistant studies.

Contact Information

Department of Kinesiology
Maverick Center 237B
970.248.1635

Programs of Study Bachelors/Minors

- Exercise Science (BS) (p. 438)
- Exercise Science (Minor) (p. 441)

Exercise Science (BS)

Degree: Bachelor of Science
Major: Exercise Science
Program Code: 3138

Students enrolled in this concentration should have a strong interest in the sciences as this program applies science to human function. The student will begin studies with science courses such as physics, general chemistry, and human anatomy & physiology. Continued studies will include courses such as: exercise physiology, anatomical kinesiology, biomechanics, physical activity and aging, medical conditions and pharmacology, and sports nutrition, among other subject areas. This major is designed to prepare students for graduate programs such as: physical therapy, physician's assistant, occupational therapy, and exercise physiology.

Colorado Mesa students frequently continue their study for graduate or professional degrees at universities widely recognized as top programs in exercise physiology, physical therapy, occupational therapy, physical education and public health.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Evaluate the functions of the individual body systems. (Specialized Knowledge)
2. Identify risk factors, exercise cautions and other safety concerns. (Specialized Knowledge)

3. Identify the scope and definitions of health, fitness, and human performance with the ability to analyze the data critically. (Applied Learning, Quantitative Fluency)
4. Describe procedures and/or statistical analyses for physiological assessments. (Quantitative Fluency)
5. Apply biomechanical principles to movement and be able to communicate and formulate conclusions about the results. (Critical Thinking)
6. Demonstrate the ability to clearly communicate specialized knowledge. (Communication Fluency)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 113	College Algebra-GTMA1 [2]	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences [3]		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [4]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

1 Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.
2 This is a 4 credit course. 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.
3 PSYC 233 is suggested.
4 7 semester hours, one course must include a lab.
PHYS 111/PHYS 111L and PHYS 112/PHYS 112L are suggested.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course [1]		1
Select one Activity course		1
Essential Learning Capstone [2]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**7**

1 KINA 128 is suggested because it is a prerequisite for KINE 403.

[2] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

Code	Title	Semester Credit Hours
STAT 200	Probability and Statistics-GTMA1	3
BIOL 209 & 209L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Laboratory	4
CHEM 131 & 131L	General Chemistry I-GTSC1 and General Chemistry Laboratory I-GTSC1	5
CHEM 132 & 132L	General Chemistry II-GTSC1 and General Chemistry Laboratory II-GTSC1	5
KINE 265	Emergency Care	3
Total Semester Credit Hours		**20**

Program Specific Degree Requirements

(48-54 semester hours, must pass all courses with a grade of "C" or higher and maintain a 2.0 cumulative GPA or higher in coursework toward the major content area.)

Code	Title	Semester Credit Hours
Required Core Courses		
KINE 200	Foundations of Kinesiology	3
KINE 203	Human Nutrition	3
KINE 213	Applications of Physical Fitness and Exercise Prescription	3
KINE 301	Health and Fitness Assessment	3
KINE 303 & 303L	Physiology of Exercise and Physiology of Exercise Laboratory	4
KINE 309	Anatomical Kinesiology	3
KINE 370 & 370L	Biomechanics and Biomechanics Laboratory	4
KINE 394	Kinesiology Junior Seminar	1
KINE 403	Advanced Strength and Conditioning	3
or KINE 404	Clinical Exercise Physiology and Advanced Exercise Prescription	
KINE 405	Sports Nutrition	3
KINE 415	Physical Activity and Aging	3
KINE 499	Internship	3
Total Semester Credit Hours		**36**

Code	Title	Semester Credit Hours
Restricted Electives		
Select at least four courses totaling 12-18 credits from the list below. Courses listed with a lecture and lab are counted as one course.		12-18
BIOL 210 & 210L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Laboratory	
BIOL 241	Pathophysiology	
BIOL 301 & 301L	Principles of Genetics and Principles of Genetics Laboratory	
BIOL 352 & 352L	Human Physiology and Human Physiology Laboratory	
BIOL 409 & 409L	Gross Human Anatomy and Gross Human Anatomy Laboratory	
CHEM 311 & 311L	Organic Chemistry I and Organic Chemistry I Laboratory	
CHEM 312 & 312L	Organic Chemistry II and Organic Chemistry II Laboratory	
CHEM 315	Biochemistry I	
CHEM 317L	Biochemistry Laboratory	
KINE 330	Prevention and Evaluation of Injuries to the Physically Active	
KINE 401	Organization, Management, and Legal Liabilities for Youth Fitness Programs	
KINE 403	Advanced Strength and Conditioning [1]	
KINE 404	Clinical Exercise Physiology and Advanced Exercise Prescription [1]	
KINE 417	Health Behavior Change	
KINE 420	Therapeutic Interventions	
KINE 440	Clinical Anatomy	
KINE 487	Structured Research	
PSYC 340	Abnormal Psychology	
Other Requirements		
CPR card must be current upon graduation		
Total Semester Credit Hours		**12-18**

[1] Do not double count KINE 403/KINE 404 from the list of major requirements.

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total hours to 120 hours. 8-14 semester hours. If you choose 200-level courses for the Restricted Electives above, make sure you choose 300-level and above courses for electives to ensure having 40 hours of upper division courses for graduation.

Code	Title	Semester Credit Hours
MATH 113	College Algebra-GTMA1	1
Select additional electives		7-13
Total Semester Credit Hours		**8-14**

Suggested Course Plan

While the sequencing below culminates in a total of 116-124 semester credit hours, students must complete a minimum of 120 semester credit hours as required for completion of the degree, including satisfactory completion of all required courses. Plan to complete requirements with varying hour options accordingly.

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
KINE 100	Health and Wellness	1
KINE 200	Foundations of Kinesiology	3
MATH 113	College Algebra-GTMA1	4
KINA Activity		1
Essential Learning - Natural Science with Lab		4
	Semester Credit Hours	**16**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
KINE 213	Applications of Physical Fitness and Exercise Prescription	3
Essential Learning - Social and Behavioral Science		3
Essential Learning - History		3
Essential Learning - Natural Science		3
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
BIOL 209 & 209L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Laboratory	4
CHEM 131 & 131L	General Chemistry I-GTSC1 and General Chemistry Laboratory I-GTSC1	5
KINE 203	Human Nutrition	3
STAT 200	Probability and Statistics-GTMA1	3
	Semester Credit Hours	**15**
Spring Semester		
CHEM 132 & 132L	General Chemistry II-GTSC1 and General Chemistry Laboratory II-GTSC1	5
KINE 265	Emergency Care	3
Essential Learning - Social and Behavioral Science		3
Essential Learning - Humanities		3
Essential Learning - Fine Arts		3
	Semester Credit Hours	**17**
Third Year		
Fall Semester		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
KINE 301	Health and Fitness Assessment	3
KINE 303 & 303L	Physiology of Exercise and Physiology of Exercise Laboratory	4
KINE 309	Anatomical Kinesiology	3
KINE 394	Kinesiology Junior Seminar	1
	Semester Credit Hours	**15**
Spring Semester		
KINE 370 & 370L	Biomechanics and Biomechanics Laboratory	4
KINE 415	Physical Activity and Aging	3
KINA Activity		1
Restricted Elective		6-10
	Semester Credit Hours	**14-18**
Fourth Year		
Fall Semester		
KINE 403 or KINE 404	Advanced Strength and Conditioning or Clinical Exercise Physiology and Advanced Exercise Prescription	3
KINE 405	Sports Nutrition	3
Restricted Elective		3-5
Elective (if needed)		3
	Semester Credit Hours	**12-14**
Spring Semester		
KINE 499	Internship	3
Restricted Elective		3-5
Electives (2 courses)		6
	Semester Credit Hours	**12-14**
	Total Semester Credit Hours	**116-124**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Exercise Science (Minor)

Minor: Exercise Science
Program Code: M104

Students enrolled in the Exercise Science minor should have a strong interest in fitness, health promotion, and exercise science. Students will explore subject areas that include: anatomy, physiology, kinesiology, applications of physical fitness, and exercise physiology.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(24 semester hours)

Code	Title	Semester Credit Hours
BIOL 209	Human Anatomy and Physiology I	3
BIOL 209L	Human Anatomy and Physiology I Laboratory	1
KINE 213	Applications of Physical Fitness and Exercise Prescription	3
KINE 265	Emergency Care	3
KINE 297	Practicum	1
KINE 301	Health and Fitness Assessment	3
KINE 303	Physiology of Exercise	3
KINE 303L	Physiology of Exercise Laboratory	1
KINE 309	Anatomical Kinesiology	3
Select 3-4 hours from the courses listed below.		3-4
KINE 203	Human Nutrition	
KINE 310	Methods of Exercise Instruction	
KINE 370 & 370L	Biomechanics and Biomechanics Laboratory	
KINE 403	Advanced Strength and Conditioning	
KINE 404	Clinical Exercise Physiology and Advanced Exercise Prescription	
KINE 405	Sports Nutrition	
Other Requirements		
CPR card must be current upon graduation		
Total Semester Credit Hours		**24-25**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student’s responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar’s Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar’s Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the “Intent to Graduate” form.

If a student’s petition for graduation is denied, it will be their responsibility to consult the Registrar’s Office regarding next steps.

Fire Science Technology

Program Description

The Fire Science Technology program is designed to prepare students for entry-level occupations in structural fire service as well as provide training and skills for individuals already employed in the fire service who are interested in career advancement. The Fire Science curriculum is designed in accordance with the International Fire Service Training Association (IFSTA) standards.

Job opportunities may be found in small or large municipal fire departments, fire protection districts, or industrial fire departments. Students wishing to further their education with a four-year degree can do so through select university programs.

Why earn a fire science degree at CMU Tech?

- This program provides intensive instruction that satisfies the certification requirement to take the State Colorado Division of Fire Prevention and Control Firefighter I exam. The Academy's rigorous instruction includes lectures at CMU and CMU Tech by seasoned firefighters, and hands-on practice at state-of-the-art live burn facilities.
- The Academy students will experience operations such as house burns, car fires, forcible entry, and many others. If you are looking for a career in firefighting, or if you simply want to serve as a volunteer firefighter, this is an excellent place to begin.
- The AAS in Fire Science Technology enables area firefighters and community members an opportunity to obtain Continuing Education credits, provide firefighters a location to perform their Job Performance Requirement testing, provide a location for young perspective firefighters to receive the education and training to move forward into the fire service and enable them to feed directly onto a local fire agency.
- External agencies impacting the curriculum include the Fire and Emergency Services Higher Educational (FESHE) organization which accredits fire science programs. This organization establishes standards to ensure the quality of the educational experience, and the assessment of student knowledge and skills. The design and implementation of CMU Tech's Fire Science program would align with those standards.

Fire Academy

In addition to the AAS Degree, students can also earn a Fire Academy certificate at CMU Tech.

Firefighting is more than a career, it's a challenging and exciting profession where you can make a real difference in people's lives, whether responding to fires, administering first aid, or inspecting for fire hazards. Train with a close-knit community of dedicated, seasoned firefighters in the CMU Tech Fire Academy. In one semester of classes, students can become certified to work as a firefighter in Colorado.

Fire departments set high standards to save lives. Students will be challenged to demonstrate peak physical capabilities along with a drive to be the best. Preventing and putting out fires involves carrying heavy gear in tough conditions while working as a team and keeping a cool head.

Based at a state-of-the-art training facility, CMU Tech has everything students need to prepare for a career in fire. In just 16 weeks, students will get 45 hours of classroom work and 135 hours of hands-on training to prepare for a career in fire service. The Fire Academy will prepare students to take their first step in a firefighting career and pass the Firefighter I and Hazmat Colorado practical certification examinations.

Additional requirements for admission to the Fire Academy:

1. Students must first contact the Director of Fire Science at 970-255-2576.
2. Fill out a secondary application.
3. Applications open November 1st and will close March 31st.

Contact Information

CMU Tech
Office of Student Services, Kayenta Hall102
2508 Blichmann Avenue
970.255.2670

Programs of Study

Certificates

- Fire Academy Level 1 (Technical Certificate) (p. 448)
- Fire Academy Level 1-NFPA Firefighter I/HazMat Certification (Technical Certificate) (p. 450)

Associates

- Fire Science Technology (AAS) (p. 443)
- Fire Science Technology with NFPA Certifications (AAS) (p. 445)

Fire Science Technology (AAS)

Degree: Associate of Applied Science
Major: Fire Science Technology
Program Code: 1314

The Fire Science Technology program is designed to prepare students for entry level occupation in Structural fire service as well as provide training and skills for individuals already employed in the fire service that are interested in career advancement.

Job opportunities may be found in small or large municipal fire departments, fire protection districts, or industrial fire departments.

This program provides intensive instruction that satisfies the certification requirement to take the State Colorado Division of Fire Prevention and Control Firefighter I exam. The Academy's rigorous instruction includes lectures at CMU Tech/CMU by seasoned firefighters, and hands-on practice at state-of-the-art live burn facilities.

The Academy student will experience operations such as house burns, car fires, forcible entry, and many others. If you are looking for a career in firefighting, or if you simply want to serve as a volunteer firefighter, this is an excellent place to begin.

Students wishing to further their education with a four-year degree have the opportunity to do so through select university programs.

Program courses will be offered in two formats, traditional lecture and lab activities and as hybrid courses (partially face-to-face and partially online). The Fire Science curriculum is designed in accordance with the International Fire Service Training Association (IFSTA) standards.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Locate, gather and organize evidence and be able to demonstrate basic principles of determining area or origin, cause of fire, and application of sound investigative principles. (Specialized Knowledge)\ \
2. Apply Chemistry and Mathematics principles to solve fire protection problems and concepts and be able to demonstrate those methods to analyze and explain issues in quantitative terms. (Quantitative Fluency)
3. Demonstrate proficient formal and informal communication and writing skills that are professional in nature. (Communication Fluency)
4. Demonstrate the scope and application of principle skills, fire behavior, and core practices of firefighting strategies, practices and policies that guide the modern fire and emergency services profession, particularly in a dynamic and multicultural environment. (Critical Thinking)
5. Reflect on and respond to ethical, social, civic, and/or environmental challenges at local, national, and/or global levels of firefighting.\ (Personal/Social Responsibility)\
6. Explain the administrative workings of a fire department including budget preparation, resource allocation, long-range planning, and fiscal projections.\ (Information Literacy)\

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Specific to this degree:

- 63 semester hours required for the AAS in Fire Science Technology
- Only the courses listed may be used as substitutes, if a student has already taken a required course. A substitution form approved by the department must be submitted to the Registrar's Office to allow the change.
  - FSTR 203 Fire Hydraulics and Water Supply
  - FSTR 205 Fire Investigation I
  - FSTR 252 Fire Investigation II
  - FSWM 156 Firefighter Type I and Fire Line Leadership
  - FSWM 244 Wildland Training for Structural Fire Fighters

Essential Learning Requirements

(16 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English		
ENGL 111	English Composition I-GTCO1	3
Select one of the following courses:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communication	
SPCH 102	Speechmaking	
Mathematics		
MATH 113	College Algebra-GTMA1 (or higher)	4
Other Essential Learning Core Courses		
Select one Social and Behavioral Sciences, Natural Sciences, Fine Arts, or Humanities course		3
Select one Social and Behavioral Sciences, Natural Sciences, Fine Arts, or Humanities course		3
Total Semester Credit Hours		**16**

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirements		
KINE 100	Health and Wellness	1
KINA 127	Physical Conditioning	1
Total Semester Credit Hours		**2**

Program Specific Degree Requirements

Code	Title	Semester Credit Hours
EMTS 115	Emergency Medical Responder	3
FSTR 100	Fire Fighter I	9
FSTR 101	Fire Fighter II	3
FSTR 102	Principles of Emergency Service Suppression	3
FSTR 103	Fire Behavior and Combustion	3
FSTR 105	Building Construction for Fire Protection	3
FSTR 106	Fire Prevention	3
FSTR 107	Hazardous Materials Operations Level I	3
FSTR 109	Occupational Safety and Health for Fire	3
FSTR 151	Driver-Operator	3
FSTR 201	Instructional Methodology	3
FSTR 202	Strategy and Tactics	3
FSTR 206	Fire Officer Supervision and Leadership	3
Total Semester Credit Hours		**45**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
FSTR 102	Principles of Emergency Service Suppression	3
FSTR 105	Building Construction for Fire Protection	3
FSTR 106	Fire Prevention	3
FSTR 109	Occupational Safety and Health for Fire	3
MATH 113	College Algebra-GTMA1	4
	Semester Credit Hours	**16**
Spring Semester		
FSTR 103	Fire Behavior and Combustion	3
FSTR 151	Driver-Operator	3
FSTR 201	Instructional Methodology	3
EMTS 115	Emergency Medical Responder	3
ENGL 111	English Composition I-GTCO1	3
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
FSTR 100	Fire Fighter I	9
FSTR 107	Hazardous Materials Operations Level I	3
KINA 127	Physical Conditioning	1
Essential Learning Elective - Any Social Behavioral Sciences, Natural Sciences, Fine Art or Humanities		3
	Semester Credit Hours	**16**
Spring Semester		
FSTR 101	Fire Fighter II	3
FSTR 202	Strategy and Tactics	3
FSTR 206	Fire Officer Supervision and Leadership	3
KINE 100	Health and Wellness	1
Essential Learning Elective - Any Social Behavioral Sciences, Natural Sciences, Fine Art or Humanities		3
Choose one of the following:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communication	
SPCH 102	Speechmaking	
	Semester Credit Hours	**16**
	Total Semester Credit Hours	**63**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Fire Science Technology with NFPA Certifications (AAS)

Overview

Degree: Associate of Applied Science

Major: Fire Science Technology with NFPA Certifications
Program Code: 1407

The Fire Science Technology program is designed to prepare students for entry level occupation in structural fire service as well as provide training and skills for individuals already employed in the fire service that are interested in career advancement. The student must hold a current National Fire Protection Association (NFPA) Firefighter I Certification and a current NFPA HazMat Certification as admission requirements.

Job opportunities may be found in small or large municipal fire departments, fire protection districts, or industrial fire departments. The Academy's rigorous instruction includes lectures at CMU Tech/CMU by seasoned firefighters, and hands-on practice at state-of-the-art live burn facilities.

The Academy student will experience operations such as house burns, car fires, forcible entry, and many others. If you are looking for a career in firefighting, or if you simply want to serve as a volunteer firefighter, this is an excellent place to begin. Students wishing to further their education with a four-year degree have the opportunity to do so through select university programs.

Program courses will be offered in two formats, traditional lecture and lab activities and as hybrid courses (partially face-to-face and partially online). The Fire Science curriculum is designed in accordance with the International Fire Service Training Association (IFSTA) standards.

Specific Requirements of this Program:

- The student must hold a current National Fire Protection Association (NFPA) Firefighter I Certification and a current NFPA HazMat Certification for entry into this program. Other NFPA Certifications are optional. Copies of all Certifications must be on file in the Office of the Registrar prior to enrollment in the program.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Locate, gather and organize evidence and be able to demonstrate basic principles of determining area or origin, cause of fire, and application of sound investigative principles. (Specialized Knowledge)\ \
2. Apply Chemistry and Mathematics principles to solve fire protection problems and concepts and be able to demonstrate those methods to analyze and explain issues in quantitative terms. (Quantitative Fluency)
3. Demonstrate proficient formal and informal communication and writing skills that are professional in nature. (Communication Fluency)
4. Demonstrate the scope and application of principle skills, fire behavior, and core practices of firefighting strategies, practices and policies that guide the modern fire and emergency services profession, particularly in a dynamic and multicultural environment. (Critical Thinking)
5. Reflect on and respond to ethical, social, civic, and/or environmental challenges at local, national, and/or global levels of firefighting.\ (Personal/Social Responsibility)\
6. Explain the administrative workings of a fire department including budget preparation, resource allocation, long-range planning, and fiscal projections.\ (Information Literacy)\

Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.

- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this degree:

- 63 semester hours required for the AAS in Fire Science Technology with NFPA Certifications.
- The student must hold a current National Fire Protection Association (NFPA) Firefighter I Certification and a current NFPA HazMat Certification. Other NFPA Certifications are optional and may count toward the degree.
- Copies of all Certifications used toward this degree must be on file in the Office of the Registrar prior to enrollment in the program.
- Credit granted for NFPA Certifications applies only to Fire Science Technology programs.
- Students may earn only the Fire Science Technology with NFPA Certifications AAS or the Fire Science Technology AAS.
- Only the courses listed may be used as substitutes, if a student has already taken a required course. A substitution form approved by the department must be submitted to the Registrar's Office to allow the change.
  - FSTR 203 Fire Hydraulics and Water Supply
  - FSTR 205 Fire Investigation I
  - FSTR 252 Fire Investigation II
  - FSWM 156 Firefighter Type I and Fire Line Leadership
  - FSWM 244 Wildland Training for Structural Fire Fighters

Essential Learning Requirements

(16 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English		
ENGL 111	English Composition I-GTCO1	3
Select one of the following courses:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communication	
SPCH 102	Speechmaking	
Mathematics		
MATH 113	College Algebra-GTMA1 (or higher)	4
Other Essential Learning Core Courses		
Select one Social and Behavioral Sciences, Natural Sciences, Fine Arts, or Humanities course		3
Select one Social and Behavioral Sciences, Natural Sciences, Fine Arts, or Humanities course		3
Total Semester Credit Hours		**16**

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirements		
KINE 100	Health and Wellness	1
KINA 127	Physical Conditioning [1]	1
Total Semester Credit Hours		**2**

[1] KINA 127 will be satisfied by the NFPA Firefighter I Certification, which is required for admission to the program.

Program Specific Degree Requirements

(45 semester hours)

Code	Title	Semester Credit Hours
Required Courses and Certifications		
NFPA Firefighter I Certification [1, 2]		9
NFPA HazMat Awareness/Operations Certification [1, 2]		3
EMTS 115	Emergency Medical Responder	3
FSTR 102	Principles of Emergency Service Suppression	3
FSTR 105	Building Construction for Fire Protection	3
FSTR 106	Fire Prevention	3
FSTR 109	Occupational Safety and Health for Fire	3
FSTR 201	Instructional Methodology	3
Other Requirements		
All categories below must be completed.		
Firefighter II - Complete one of the following:		*3*
NFPA Firefighter II Certification [1,3]		
FSTR 101	Fire Fighter II	
Fire Behavior - Complete one of the following:		*3*
NFPA Fire Behavior Certification [1,3]		
FSTR 103	Fire Behavior and Combustion	
Driver Operator - Complete one of the following:		*3*
NFPA Driver Operator Certification [1,3]		
FSTR 151	Driver-Operator	
Strategy and Tactics - Complete one of the following:		*3*
NFPA Strategy and Tactics Certification [1,3]		
FSTR 202	Strategy and Tactics	
Fire Officer I - Complete one of the following:		*3*
NFPA Fire Officer I Certification [1,3]		
FSTR 206	Fire Officer Supervision and Leadership	
Total Semester Credit Hours		**45**

[1] Credit granted for NFPA Certifications applies only to Fire Science Technology programs.

[2] NFPA Firefighter I Certification and NFPA HazMat Awareness/Operations Certification are required for admission to the program

and will grant credit towards hours needed for the degree. The NFPA Firefighter I Certification also satisfies the KINA 127 requirement.

[3] This Certification will grant credit towards hours needed for the degree.

Suggested Course Plan

Based upon the NFPA Certifications a student brings to the program, the below Plan of Study may need adjusted. Please see the Program Director to discuss the student's specific plan to earn the degree.

First Year		
Fall Semester		**Semester Credit Hours**
FSTR 102	Principles of Emergency Service Suppression	3
FSTR 105	Building Construction for Fire Protection	3
FSTR 106	Fire Prevention	3
FSTR 151	Driver-Operator	3
MATH 113	College Algebra-GTMA1	4
	Semester Credit Hours	**16**
Spring Semester		
FSTR 103	Fire Behavior and Combustion	3
FSTR 109	Occupational Safety and Health for Fire	3
EMTS 115	Emergency Medical Responder	3
ENGL 111	English Composition I-GTCO1	3
FSTR 201	Instructional Methodology	3
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
Essential Learning Elective - Any Social Behavioral Sciences, Natural Sciences, Fine Art or Humanities		3
See Advisor for Specific Required Courses		13
	Semester Credit Hours	**16**
Spring Semester		
FSTR 101	Fire Fighter II	3
FSTR 202	Strategy and Tactics	3
FSTR 206	Fire Officer Supervision and Leadership	3
KINE 100	Health and Wellness	1
Essential Learning Elective - Any Social Behavioral Sciences, Natural Sciences, Fine Art or Humanities		3
Choose one of the following:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communication	
SPCH 102	Speechmaking	
	Semester Credit Hours	**16**
	Total Semester Credit Hours	**63**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Fire Academy Level 1 (Technical Certificate)

Award: Technical Certificate
Specialization: Fire Academy Level 1
Program Code: 1167

The Fire Academy Level I Certificate is designed to prepare students for entry level employment in the Structural fire service as well as provide training and skills for individuals already employed in fire service that are interested in specialized training.

This program provides instruction that satisfies the certification requirement to take the State Colorado Division of Fire Prevention and Control Firefighter I exam. The Academy instruction includes lectures at CMU Tech/CMU by seasoned firefighters, and hands-on practice at state-of-the-art live burn facilities.

The Academy student will experience operations such as house burns, car fires, forcible entry, and many others. If you are looking for a career in firefighting, or if you simply want to serve as a volunteer firefighter, this is an excellent place to begin.

Program courses will be offered in two formats, traditional lecture and lab activities and as hybrid courses (partially face-to-face and partially online). The Introduction to Structural Firefighting course is designed in accordance with the International Fire Service Training Association (IFSTA) standards.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning,

communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Locate, gather and organize evidence and demonstrate basic principles of determining area or origin, cause of fire, and application of sound investigative principles. (Specialized Knowledge)
2. Apply Chemistry and Mathematics principles to solve fire protection problems and concepts and demonstrate those methods to analyze and explain issues in quantitative terms. (Quantitative Fluency)
3. Effectively evaluate a real-time fire or rescue situation to develop and communicate an effective incident action plan to the rest of the team. (Communication Fluency)
4. Assess a dynamic fire scene including risk management profile, rapidly changing fire conditions, and life safety concerns to establish and implement an effective incident management strategy. (Critical Thinking)\

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than “C” will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(16 semester hours)

Code	Title	Semester Credit Hours
Required Courses		
FSTR 100	Fire Fighter I	9
FSTR 103	Fire Behavior and Combustion	3
FSTR 107	Hazardous Materials Operations Level I	3
KINA 127	Physical Conditioning	1
Total Semester Credit Hours		**16**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
FSTR 100	Fire Fighter I	9
FSTR 103	Fire Behavior and Combustion	3
FSTR 107	Hazardous Materials Operations Level I	3
KINA 127	Physical Conditioning	1
	Semester Credit Hours	**16**
	Total Semester Credit Hours	**16**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student’s responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar’s Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar’s Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.

- Submit the “Intent to Graduate” form to the Registrar’s Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's “Intent to Graduate” does not automatically move to a later graduation date.

Fire Academy Level 1-NFPA Firefighter I/HazMat Certification (Technical Certificate)

Overview

Award: Technical Certificate
Specialization: Fire Academy Level 1-NFPA Firefighter I/Hazmat Certification
Program Code: 1207

The Fire Academy Level I Certificate is designed to prepare students for entry level employment in the Structural fire service as well as provide training and skills for individuals already employed in fire service that are interested in specialized training. The student must hold a current National Fire Protection Association (NFPA) Firefighter I Certification and a current NFPA HazMat Certification as admission requirements into this degree.

The Academy instruction includes lectures at CMU Tech/CMU by seasoned firefighters, and hands-on practice at state-of-the-art live burn facilities. The Academy student will experience operations such as house burns, car fires, forcible entry, and many others. If you are looking for a career in firefighting, or if you simply want to serve as a volunteer firefighter, this is an excellent place to begin.

Program courses will be offered in two formats, traditional lecture and lab activities and as hybrid courses (partially face-to-face and partially online). The Introduction to Structural Firefighting course is designed in accordance with the International Fire Service Training Association (IFSTA) standards.

Specific Requirements of this Program:

- The student must hold a current National Fire Protection Association (NFPA) Firefighter I Certification and a current NFPA HazMat Certification and provide a copy of these certifications to the Registrar's Office prior to enrolling in the program.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Locate, gather and organize evidence and demonstrate basic principles of determining area or origin, cause of fire, and application of sound investigative principles. (Specialized Knowledge)
2. Apply Chemistry and Mathematics principles to solve fire protection problems and concepts and demonstrate those methods to analyze and explain issues in quantitative terms. (Quantitative Fluency)
3. Effectively evaluate a real-time fire or rescue situation to develop and communicate an effective incident action plan to the rest of the team. (Communication Fluency)
4. Assess a dynamic fire scene including risk management profile, rapidly changing fire conditions, and life safety concerns to establish and implement an effective incident management strategy. (Critical Thinking)\

Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than “C” will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than “C” will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.

- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this program:

- Must hold current National Fire Protection Association (NFPA) Firefighter I Certification and NFPA HazMat Certification for entry into this program.

Program Specific Certificate Requirements

(6 semester hours. National Fire Protection Association (NFPA) Firefighter I Certification and NFPA HazMat Certification are required for entry into this program.)

Code	Title	Semester Credit Hours
Required Courses		
FSTR 103	Fire Behavior and Combustion	3
FSTR 151	Driver-Operator	3
NFPA Certifications apply only to Fire Science Programs.		
Students may earn only this certificate or the Fire Academy Level 1 certificate.		
Total Semester Credit Hours		**6**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
FSTR 103	Fire Behavior and Combustion	3
FSTR 151	Driver-Operator	3
	Semester Credit Hours	**6**
	Total Semester Credit Hours	**6**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Fitness and Health Promotion

Program Description

Students enrolled in fitness and health promotion should have a strong interest in the sciences as this program applies science to human function. The student will explore exercise physiology, anatomical kinesiology, community health or worksite health promotion, physical activity and aging, and human and sports nutrition. Career opportunities include: strength coaches in the private sector, secondary education, the university, or professional sports programs; sports, health, and wellness program instructors or directors; managers and leaders in the worksite health promotion setting; occupational therapists*; health department staff at the local, state, regional, or federal level; and personal trainers or group exercise instructors.

*This profession will require additional schooling.

Contact Information

Department of Kinesiology
Maverick Center 237B
970.248.1635

Programs of Study

Bachelors

- Fitness and Health Promotion (BS) (p. 452)

Fitness and Health Promotion (BS)

Degree: Bachelor of Science
Major: Fitness and Health Promotion
Program Code: 3150

Students enrolled in this major should have a strong interest in the sciences as this program applies science to human function. The student will explore exercise physiology, anatomical kinesiology, community health, physical activity and aging, worksite health promotion, and sports nutrition, among other subject areas. Career opportunities include: sports and wellness program instructors and directors; strength coaches for college, university and professional sports[1] programs; managers and exercise leaders in corporate wellness programs; nutritionists[1]; occupational therapists[1]; and personal trainers.

[1] Career requires additional post-baccalaureate studies.

Colorado Mesa students frequently continue their study for graduate or professional degrees at universities widely recognized as top programs in exercise physiology, occupational therapy, physical education, and public health.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Evaluate the functions of the individual body systems. (Specialized Knowledge)
2. Identify risk factors associated with chronic disease. (Specialized Knowledge)
3. Identify and describe nutritional practices related to disease, health, fitness and human performance. (Critical Thinking)
4. Identify the scope and definitions of health, fitness, and human performance, with the ability to analyze the data critically. (Applied Learning, Quantitative Fluency)
5. Describe and communicate how physical activity relates to health. (Communication Fluency)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 113	College Algebra-GTMA1 [2]	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

[1] Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

[2] This is a 4 semester credit hour course. 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.

Other Lower Division Requirements

(7 semester hours)

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
KINA 1XX	Activity Course	1
KINA 1XX	Activity Course	1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**7**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(13-14 semester hours)

Code	Title	Semester Credit Hours
One of the following: [1]		3-4
CSCI 110 & 110L	Beginning Programming and Beginning Programming Laboratory	
STAT 200	Probability and Statistics-GTMA1	
KINE 203	Human Nutrition	3
BIOL 209 & 209L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Laboratory	4
KINE 265	Emergency Care	3
Total Semester Credit Hours		**13-14**

[1] Or higher level CSCI or STAT course.

Program Specific Degree Requirements

(48-49 semester hours, 2.0 cumulative GPA or higher required in major content area.)

Code	Title	Semester Credit Hours
KINA 128	Intermediate Weight Training	1
KINA 1XX	Activity course	1
KINE 200	Foundations of Kinesiology	3
KINE 213	Applications of Physical Fitness and Exercise Prescription	3
KINE 297	Practicum	2
KINE 301	Health and Fitness Assessment	3
KINE 303 & 303L	Physiology of Exercise and Physiology of Exercise Laboratory	4
KINE 309	Anatomical Kinesiology	3
KINE 310	Methods of Exercise Instruction	3
KINE 333	Community Health	3
or KINE 411	Worksite Health Promotion	
KINE 394	Kinesiology Junior Seminar	1
KINE 403	Advanced Strength and Conditioning	3
or KINE 404	Clinical Exercise Physiology and Advanced Exercise Prescription	
KINE 405	Sports Nutrition	3
KINE 415	Physical Activity and Aging	3
KINE 499	Internship	3
Restricted Electives		
Select three courses from the following: [1]		9-10
BIOL 315	Epidemiology	
KINE 333	Community Health [2]	
KINE 370 & 370L	Biomechanics and Biomechanics Laboratory	
KINE 401	Organization, Management, and Legal Liabilities for Youth Fitness Programs	
KINE 403	Advanced Strength and Conditioning [3]	

KINE 404	Clinical Exercise Physiology and Advanced Exercise Prescription [3]	
KINE 411	Worksite Health Promotion [2]	
KINE 417	Health Behavior Change	
KINE 430	Medical Conditions and Pharmacology in the Physically Active	
KINE 480	Inclusive Physical Activity	
KINE 487	Structured Research	
KINE 396	Topics	
or KINE 496	Topics	
PSYC 401	Sport Psychology	
ENTR 300	Small Business and Entrepreneurship	
ENTR 340	Applied Financial Management for Emerging Businesses	
Other Requirements		
CPR card must be current upon graduation		
Total Semester Credit Hours		**48-49**

1 Courses with a lecture and lab are counted as one course.
2 KINE 333/KINE 411 may not be double counted from the list of major requirements.
3 KINE 403/ KINE 404 may not be double counted from the list of major requirements.

General Electives

(All college level courses appearing on your final transcript, not listed above that will bring your total hours to 120 hours. 19-21 semester hours, 1-2 must be upper-division.)

Code	Title	Semester Credit Hours
MATH 113	College Algebra-GTMA1	1
Select additional electives		18-20
Total Semester Credit Hours		**19-21**

Suggested Course Plan

While the sequencing below culminates in a total of 121-125 semester credit hours, students must complete a minimum of 120 semester credit hours as required for completion of the degree, including satisfactory completion of all required courses. Plan to complete requirements with varying hour options accordingly.

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
KINE 100	Health and Wellness	1
KINA 1XX	Activity course	1
KINE 200	Foundations of Kinesiology	3
Essential Learning - Natural Science		3
Essential Learning - Fine Arts		3
Essential Learning - History		3
	Semester Credit Hours	**17**
Spring Semester		
BIOL 209 & 209L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Laboratory	4
ENGL 112	English Composition II-GTCO2	3
MATH 113	College Algebra-GTMA1	4
KINE 213	Applications of Physical Fitness and Exercise Prescription	3
Essential Learning - Social and Behavioral Sciences		3
	Semester Credit Hours	**17**
Second Year		
Fall Semester		
CSCI 110 & 110L or STAT 200	Beginning Programming [1] or Probability and Statistics-GTMA1	3-4
KINE 265	Emergency Care	3
KINA 1XX	Activity course	1
Essential Learning - Natural Science with Lab		4
Essential Learning - Humanities		3
General Elective		3
	Semester Credit Hours	**17-18**
Spring Semester		
ESSL 200	Essential Speech	1
ESSL 290	Maverick Milestone	3
KINE 203	Human Nutrition	3
KINE 297	Practicum	2
KINA 1XX	Activity Course	1
Essential Learning - Social and Behavioral Sciences		3
General Elective		3
	Semester Credit Hours	**16**
Third Year		
Fall Semester		
KINE 301	Health and Fitness Assessment	3
KINE 303 & 303L	Physiology of Exercise and Physiology of Exercise Laboratory	4
KINE 333 or KINE 411	Community Health or Worksite Health Promotion	3
KINE 394	Kinesiology Junior Seminar	1
KINA 128	Intermediate Weight Training	1
General Elective		3
	Semester Credit Hours	**15**
Spring Semester		
KINE 309	Anatomical Kinesiology	3
KINE 405	Sports Nutrition	3
KINE 415	Physical Activity and Aging	3
Restricted Elective		3
General Elective		3
	Semester Credit Hours	**15**
Fourth Year		
Fall Semester		
KINE 310	Methods of Exercise Instruction	3
Restricted Elective		6-7
General Elective		3-4
	Semester Credit Hours	**12-14**
Spring Semester		
KINE 499	Internship	6
KINE 403 or KINE 404	Advanced Strength and Conditioning or Clinical Exercise Physiology and Advanced Exercise Prescription	3
General Elective (if needed)		3-4
	Semester Credit Hours	**12-13**
	Total Semester Credit Hours	**121-125**

1 Or higher level CSCI or STAT course.

Graduation and Advising
Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Forensic Anthropology
Program Description

Forensic anthropology is the use of anthropological techniques to assist law enforcement, with the focus on the study of the human skeleton. Generally, physical anthropologists concentrate on the recovery and identification of human remains, most often where the victim's remains are in advanced stages of decomposition. There are two main foci: osteology (the study of bones) and taphonomy (the study of how organic matter decays). An osteological analysis of a skeleton assesses the age, sex, ancestry, stature, and unique features of an individual from the skeleton. The study of taphonomy helps to determine a post-mortem interval and what happened to a body from the time of death to the time of discovery. The minor is suited to those majoring in criminal justice or biology with an interest in death investigation.

Contact Information

Department of Social and Behavioral Sciences
Houston Hall
970.248.1696

Programs of Study
Bachelors/Minors

- Forensic Anthropology (Minor) (p. 455)

Forensic Anthropology (Minor)

Minor: Forensic Anthropology
Program Code: M715

The Forensic Anthropology minor introduces students to the knowledge and skills necessary to employ anthropological techniques in a forensic context. Students become familiar with both field and laboratory techniques used in forensic anthropology. Students in the minor use the Forensic Investigation Research Station, a facility built to study the decomposition of the human body. The Minor especially complements such degree programs as Criminal Justice and Biology. Students with the background in Forensic Anthropology will be better prepared for jobs in areas related to death investigation.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(22 semester hours)

Code	Title	Semester Credit Hours
Select one of the following options:		3-4
ANTH 270 & 270L	Death and Forensic Science and Death and Forensic Science Laboratory	
ANTH 231 & 231L	Survey of Biological Anthropology-GTSS3 and Survey of Biological Anthropology Laboratory-GTSS3	
ANTH 331 & 331L	Forensic Anthropology and Forensic Anthropology Laboratory	3
ANTH 478	Professional Issues in Forensic Science	3
ANTH 499	Internship [1]	3-4
CRMJ 280 & 280L	Crime Scene Processing and Crime Scene Processing Laboratory	3
Select 6 credits of the following:		6
ANTH 420 & 420L	Field Methods in Archaeology and Field Methods in Archaeology Laboratory	
BIOL 217 & 217L	Forensic Entomology and Forensic Entomology Laboratory	
BIOL 410 & 410L	Human Osteology and Human Osteology Laboratory [2]	
Total Semester Credit Hours		**21-23**

[1] The number of internship credits will be determined by whether the student takes ANTH 231/ANTH 231L (4cr) or ANTH 270/ANTH 270L (3cr). Either way, the student will take sufficient internship credits to bring the total of required course credits to 22.

[2] These courses have prerequisite courses not required for this minor. Refer to course information for more details.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the "Intent to Graduate" form.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Forensic Science

Program Description

Forensic science is a growing professional field throughout the United States. Forensic science is the interface between laboratory analytical science and the law. Students with a minor in forensic science can seek employment with Colorado Bureau of Investigation (CBI) and other employers conducting forensic investigations, or they may continue their education by seeking a master's degree in forensic science at another institution. The minor is best suited for students majoring in biology or chemistry. It will enhance students' skills in the molecular biology, analytical chemistry and criminologist techniques used in forensic investigations.

Contact Information

Department of Biological Sciences
Wubben Science 232
970.248.1993

Programs of Study Bachelors/Minors

- Forensic Science (Minor) (p. 457)

Forensic Science (Minor)

Minor: Forensic Science
Program Code: M480

Forensic science is a growing professional field throughout the United States. Forensic science is the interface between analytical science and the law. Students with a minor in Forensic science can seek employment with CBI and other employers conducting forensic investigations, or they may continue their education by seeking a Master's degree in Forensic science at another institution. The minor is best suited for students majoring in Biology or Chemistry. The minor will enhance students' skills in the molecular biology, analytical chemistry, and criminalistic techniques used in forensic investigations.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(24-26 semester hours)

Code	Title	Semester Credit Hours
CHEM 301 & 301L	Analytical Chemistry and Analytical Chemistry Laboratory	4
BIOL 301 & 301L	Principles of Genetics and Principles of Genetics Laboratory	4
CHEM 315	Biochemistry I	3
CHEM 317L	Biochemistry Laboratory	1
ANTH 270 & 270L	Death and Forensic Science and Death and Forensic Science Laboratory	3
ANTH 478	Professional Issues in Forensic Science	3
Complete two of the following options:		6-8
BIOL 209 & 209L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Laboratory	
BIOL 217 & 217L	Forensic Entomology and Forensic Entomology Laboratory	
BIOL 344 & 344L	Forensic Molecular Biology and Forensic Molecular Biology Laboratory	
BIOL 410 & 410L	Human Osteology and Human Osteology Laboratory	
BIOL 442	Pharmacology	
CHEM 431 & 431L	Instrumental Analysis and Instrumental Analysis Laboratory	
CRMJ 280 & 280L	Crime Scene Processing and Crime Scene Processing Laboratory	
Total Semester Credit Hours		**24-26**

Lectures and coordinating labs must be taken together for credit towards graduation.

Advising and Graduation
Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the "Intent to Graduate" form.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Geographic Information Science and Technology

Program Description

Colorado Mesa University offers a certificate and a minor in Geographic Information Science and Technology. The courses are open to all students interested in broadening their knowledge and enhancing job-related skills in a rapidly expanding market of computer-based technology. The multidisciplinary nature of geographic information science and technology allows students from a wide variety of fields to participate in this exciting program.

There is a strong demand for people who are trained in geographic information science and technology and this certificate assists students in securing jobs in this rapidly growing field. GIS/GPS can be used for cartography, geology, business, biology, environmental science, history, archaeology and criminal justice.

Contact Information

Dr. Verner Johnson
vjohnson@coloradomesa.edu (johnson@coloradomesa.edu)
970.248.1672
Department of Physical and Environmental Sciences
Wubben Science 232
970.248.1993

Programs of Study
Bachelors/Minors

- Geographic Information Science and Technology (Minor) (p. 458)

Certificates

- Geographic Information Science and Technology (Professional Certificate) (p. 460)

Geographic Information Science and Technology (Minor)

Minor: Geographic Information Science and Technology
Program Code: M752

The Physical and Environmental Sciences (PES) Department at Colorado Mesa University offers a minor in Geographic Information Science and Technology. The courses are open to all students interested in broadening their knowledge and enhancing job-related skills in a rapidly expanding market of computer-based technology. The multidisciplinary nature of the Geographic Information science and technology allows students from a wide variety of fields to participate in this exciting program.

Geographic Information Science and Technology includes Geographic Information Systems, Global Positioning Systems, and Remote Sensing. A geographic information system (GIS) is a computer-based tool for mapping and analyzing geospatial data. GIS technology is a subset of information systems where the databases consists of features, activities, or events that are definable in space as points, lines, or areas. GPS (Global Positioning System) is a satellite system that allows users to collect precise geographic data for use in mapping. Remote sensing refers to any technique whereby information about objects

and the environment is obtained from a distance, such as from aircraft or satellites. Remote sensing often permits us to greatly expand our spectral view of the earth and “see” the world much more clearly than we can with the unaided eye.

Demand is strong for people who are trained in Geographic Information Science and Technology. This minor will assist students in securing jobs in this rapidly growing field. GIS/GPS can be used for cartography, business, biology, geology, environmental science, history, archeology, and criminal justice.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(16-18 semester hours)

16-18 semester hours for the Minor in Geographic Information Science and Technology.

Code	Title	Semester Credit Hours
GIST 332	Introduction to Geographic Information Systems	2
GIST 332L	Introduction to Geographic Information Systems Laboratory	1
GIST 422	GIS Data Management and Editing	2
GIST 422L	GIS Data Management and Editing Laboratory	1
GIST 432	Spatial Analysis and Modeling in GIS	2
GIST 432L	Spatial Analysis and Modeling in GIS Laboratory	1
Select one of the following courses:		1-3
GEOG 131	Introduction to Cartography	
GIST 305	Cartography for GIS	
Select a minimum of six semester hours of the following:		6
CSCI 110	Beginning Programming	
GIST 321	Introduction to Remote Sensing	
GIST 321L	Introduction to Remote Sensing Laboratory	
GEOG 341	GIS for Social Scientists	
GEOG 341L	GIS for Social Scientists Lab	
GIST 375	Global Positioning Systems for GIS	
GIST 375L	Global Positioning Systems for GIS Laboratory	
GEOL 470	Drone Explorations on Earth	
XXXX 395	Independent Study [1]	
XXXX 495	Independent Study [1]	
XXXX 497	Independent Study [1]	
Total Semester Credit Hours		**16-18**

[1] Must have a GIS focus and be approved by the GIS program advisor.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student’s responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar’s Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar’s Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the “Intent to Graduate” form.

If a student’s petition for graduation is denied, it will be their responsibility to consult the Registrar’s Office regarding next steps.

Geographic Information Science and Technology (Professional Certificate)

Award: Professional Certificate
Program of Study: Geographic Information Science and Technology
Program Code: 1770

The Physical and Environmental Sciences (PES) Department at Colorado Mesa University offers a certificate in Geographic Information Science and Technology. The courses are open to all students interested in broadening their knowledge and enhancing job-related skills in a rapidly expanding market of computer-based technology. The multidisciplinary nature of the geographic information science and technology allows students from a wide variety of fields to participate in this exciting program.

Geographic Information Science and Technology includes Geographic Information Systems, Global Positioning Systems, and Remote Sensing. A geographic information system (GIS) is a computer-based tool for mapping and analyzing geospatial data. GIS technology is a special case of information systems where the database consists of features, activities, or events that are definable in space as points, lines, or areas. GPS (Global Positioning System) is a satellite system that allows users to collect precise geographic data for use in mapping. Remote sensing refers to any technique whereby information about objects and the environment is obtained from a distance such as aircraft or satellites. The remote sensing often permits us to greatly expand our spectral view of the earth and "see" the world much more clearly than we can with the unaided eye.

Demand is strong for people who are trained in Geographic Information Science and Technology. This certificate will assist students in securing jobs in this rapidly growing field. GIS/GPS can be used for cartography, business, biology, geology, environmental science, history, archeology, and criminal justice.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU Professional Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Primarily 300-400 level courses.
- At least fifty percent of the credit hours must be taken at CMU.
- 2.00 cumulative GPA or higher in all CMU coursework.
- A grade lower than "C" in the program of study will not be counted toward meeting the certificate's requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(16-18 semester hours)

Code	Title	Semester Credit Hours
Select one of the following courses:		1-3
GIST 305	Cartography for GIS	
GEOG 131	Introduction to Cartography	
GIST 332 & 332L	Introduction to Geographic Information Systems and Introduction to Geographic Information Systems Laboratory	3
GIST 422 & 422L	GIS Data Management and Editing and GIS Data Management and Editing Laboratory	3
GIST 432 & 432L	Spatial Analysis and Modeling in GIS and Spatial Analysis and Modeling in GIS Laboratory	3
Select a minimum of six semester hours of the following:		6
CIVE 212	Introduction to Geomatics	
CSCI 110	Beginning Programming	
GEOG 341 & 341L	GIS for Social Scientists and GIS for Social Scientists Lab	
GIST 321 & 321L	Introduction to Remote Sensing and Introduction to Remote Sensing Laboratory	
GIST 375 & 375L	Global Positioning Systems for GIS and Global Positioning Systems for GIS Laboratory	
GEOL 470	Drone Explorations on Earth	
XXXX 395	Independent Study [1]	
XXXX 495	Independent Study [1]	
XXXX 497	Practicum [1]	
Total Semester Credit Hours		**16-18**

[1] Must have a GIS focus and be approved by the GIS program advisor.

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
GEOG 131 or GIST 305	Introduction to Cartography or Cartography for GIS	1-3
GIST 332 & 332L	Introduction to Geographic Information Systems and Introduction to Geographic Information Systems Laboratory [1]	3
	Semester Credit Hours	**4-6**
Spring Semester		
GIST 422 & 422L	GIS Data Management and Editing and GIS Data Management and Editing Laboratory	3
3 credit hours of any restricted elective		3
	Semester Credit Hours	**6**
Second Year		
Fall Semester		
GIST 432 & 432L	Spatial Analysis and Modeling in GIS and Spatial Analysis and Modeling in GIS Laboratory	3
Select 3 credit hours from the following restricted elective		3
CIVE 212	Introduction to Geomatics	
CSCI 110	Beginning Programming	
GIST 321	Introduction to Remote Sensing	
GIST 321L	Introduction to Remote Sensing Laboratory	
GIST 375	Global Positioning Systems for GIS	
GIST 375L	Global Positioning Systems for GIS Laboratory	
	Semester Credit Hours	**6**
	Total Semester Credit Hours	**16-18**

[1] Either GEOG 131 or GIST 305 can be prerequisite or co-requisite

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Geosciences

Program Description

The Department of Physical and Environmental Sciences offers three concentrations and three minors within Geosciences.

Geoscience instruction takes place in a state-of-the art science complex, which houses several instructional laboratories, a projects room, a computer applications laboratory, a petrology-mineralogy laboratory, rock storage facilities and a sample preparation room.

Most classes have a strong field component so that students experience the diverse geological setting of the Grand Junction area. Equipment available includes a computer-assisted X-ray diffractometer, an X-ray fluorescence spectrometer, research petrographic microscopes, binocular microscopes, GPS units, shallow seismic equipment, and a magnetometer. Computer facilities include modern PC systems with software basics for communications, database management, word-processing, and geographic information systems (GIS).

Geology

The geology concentration is designed for students who: (1) desire a strong liberal arts education with emphasis on the earth sciences, (2) wish to pursue a graduate degree in geology, or (3) desire a professional or technical geoscience career. Recent graduates are attending graduate programs at major universities or have entered the work force as geological technicians or professional geologists.

Environmental Geology

The environmental geology concentration is designed for students who: (1) desire a strong liberal arts education with emphasis on environmental issues within the earth sciences, (2) wish to pursue a graduate degree in environmental geology, or (3) desire a professional or technical career. The environmental geology concentration has the same basic framework as the geology concentration, but has a stronger emphasis on ground-water and surface-water hydrology, and low-temperature geochemistry. Recent graduates are attending graduate programs at major universities or have entered the work force as geological technicians or professional geologists.

Geology–Secondary Education

The geology secondary education licensure concentration is structured for graduates to pursue teaching careers at the middle or high school level. The basic curriculum includes all of the major topics within a traditional geology program while also incorporating teacher education courses required for licensure by the state of Colorado.

A minimum of 75 credit hours of essential learning and content area coursework must be completed with a minimum GPA of 2.80 before a candidate may apply to the Center for Teacher Education secondary licensure program. Please contact the Center for Teacher Education for further information on admissions criteria.

Geology Minor

The geology minor is designed for students who wish to take additional basic geology courses in support of their degree aspirations in other areas. A geology minor can be a valuable complement to majors in the other science disciplines and archaeology.

Watershed Science Minor

Many geology students complete the Watershed Science (p. 826) minor, which prepares them to serve the regional need for scientists with a strong background in water-related issues.

Geographic Information Systems and Technology Minor and Certificate

Many geoscientists use geographic information systems in their work. Students can learn this technology by pursuing the minor or certificate in Geographic Information Systems and Technology (p. 458).

Contact Information

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Programs of Study

Associates

- Geology, Liberal Arts (AS) (p. 473)

Bachelors/Minors

- Education: Secondary Education, Geosciences (BS) (p. 469)
- Environmental Geology, Geosciences (BS) (p. 462)
- Geology (Minor) (p. 475)
- Geology, Geosciences (BS) (p. 466)
- Watershed Science (Minor) (p. 476)

Environmental Geology, Geosciences (BS)

Degree: Bachelor of Science
Major: Geosciences
Concentration: Environmental Geology
Program Major Code: 3473

The Bachelor of Science degree with a major in Geosciences and a concentration in Environmental Geology is designed for students who (1) desire a strong liberal arts education with emphasis on environmental issues within the earth sciences, (2) wish to pursue a graduate degree in environmental geology, or (3) desire a professional or technical geoscience career. The Environmental Geology option has the same basic framework as the Geology concentration with a stronger emphasis on geologic hazards, ground-water and surface-water hydrology, biological systems, and environmental science. Recent graduates are attending graduate programs at major universities or have entered the work force as geological technicians or professional geologists.

Most classes have a strong field component so that students benefit from the diverse geological setting of the Grand Junction area. Equipment available includes hydrologic research equipment such as flow meters, stream tables, surveying equipment, and GPS units. Students engage in a capstone research project/thesis during their senior year that involves independent research and the completion of a professional report and presentation. This capstone experience develops

professional skills and provides students with a portfolio of their work for future employers or graduate schools.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Complete a comprehensive assessment exam that draws on current research, scholarship and/or techniques, as well as specialized geoscience knowledge at both the beginner and advanced levels. (Specialized Knowledge/Applied Learning)
2. Analyze data critically, reason logically, apply quantitative analysis methods correctly to geological data, and develop appropriate conclusions.(Quantitative Fluency)
3. Make and defend assertions about a geoscience-related topic in an extended well-organized document and an oral presentation that is appropriate to the geosciences community. (Communication Fluency)
4. Describe reasoned conclusions that articulate the implications and consequences of a geologic map by synthesizing geological field information using standard data collection methodologies. (Critical Thinking)
5. Reflect on and respond to ethical responsibilities required during intensive, collaborative group work in the geosciences. (Personal and Social Responsibility)
6. Find relevant sources of geological information, evaluate information critically, and apply the information appropriately and effectively to specific purposes typical of the geosciences. (information Literacy)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 151	Calculus I-GTMA1 [2]	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences		
Select one Natural Sciences course		3
You must take one of the following course sequences: [3]		4
GEOL 111 & 111L	Principles of Physical Geology-GTSC1 and Principles of Physical Geology Laboratory-GTSC1	

GEOL 113 & 113L	Field-Based Introduction to Physical Geology-GTSC1 and Field-Based Introduction to Physical Geology Laboratory-GTSC1	
Total Semester Credit Hours		**31**

[1] Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.
[2] This is a 5 semester credit hour course. 3 credits apply to the Essential Learning Requirements and 2 credits apply to Foundation Courses.
[3] Either GEOL 111/GEOL 111L or GEOL 113/GEOL 113L may be taken for credit, but not both.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(25 semester hours, must earn a grade of “C” or better in each course.)

Code	Title	Semester Credit Hours
CHEM 131 & 131L	General Chemistry I-GTSC1 and General Chemistry Laboratory I-GTSC1	5
You must take one of the following course sequences: [1]		5
PHYS 111 & 111L	General Physics I-GTSC1 and General Physics I Laboratory-GTSC1	
PHYS 131 & 131L	Fundamental Mechanics-GTSC1 and Fundamental Mechanics Laboratory-GTSC1	
STAT 200	Probability and Statistics-GTMA1	3
GEOL 112 & 112L	Principles of Historical Geology-GTSC1 and Principles of Historical Geology Laboratory-GTSC1	4
GEOL 202	Introduction to Field Studies	3
GEOL 204	Computer Applications in Geology	3
MATH 151	Calculus I-GTMA1 [2]	2
Total Semester Credit Hours		**25**

[1] Either PHYS 111/PHYS 111L or PHYS 131/PHYS 131L may be taken for credit, but not both.
[2] This is a 5 semester credit hour course. 3 credits apply to the Essential Learning Requirements and 2 credits apply to Foundation Courses.

Program Specific Degree Requirements

(48 semester hours, must earn a grade of “C” or better in each course)

Code	Title	Semester Credit Hours
Core Courses		
GEOL 250	Environmental Geology	3
GEOL 301 & 301L	Structural Geology and Structural Geology Laboratory	4
GEOL 331 & 331L	Crystallography and Mineralogy and Crystallography and Mineralogy Laboratory	4
GEOL 402 & 402L	Applications of Geomorphology and Applications of Geomorphology Laboratory	4
GEOL 444 & 444L	Sedimentology and Stratigraphy and Sedimentology and Stratigraphy Laboratory	4
GEOL 480	Summer Field Camp	6
GEOL 490	Seminar	3
Required Geology Courses		
GEOL 351	Applied Geochemistry	3
GEOL 414 & 414L	Hydrology and River Dynamics and Hydrology and River Dynamics Laboratory	4
GEOL 415 & 415L	Introduction to Ground Water and Introduction to Ground Water Laboratory	4
Total Semester Credit Hours		**39**

Code	Title	Semester Credit Hours
Restricted Electives [2]		
Select 9 semester hours from the following list. At least 5 credits must have a GEOL prefix. [1]		9
GEOL 325	Introduction to Engineering Geology	
GEOL 359	Survey of Energy-Related Natural Resources	
GEOL 361	Survey of Mineral-Related Natural Resources	
GEOL 370	Renewable Energy	
GEOL 394	Natural Resources of the West	
GEOL 404 & 404L	Geophysics and Geophysics Laboratory	
GEOL 443 & 443L	Field-Based Depositional Systems and Field-Based Depositional Systems Laboratory	
GEOL 463	Subsurface Methods	
GEOL 465	Climate Change Science	
GEOL 470	Drone Explorations on Earth	
GEOL 496	Topics	
GEOL 496L	Topics Lab	
GEOL 497	Structured Research	
GIST 332 & 332L	Introduction to Geographic Information Systems and Introduction to Geographic Information Systems Laboratory	
ENVS 312 & 312L	Soil Science and Sustainability and Soil Science and Sustainability Laboratory	

POLS 488	Environmental Politics and Policy	
CHEM 132 & 132L	General Chemistry II-GTSC1 and General Chemistry Laboratory II-GTSC1	
MATH 152	Calculus II	
STAT 301	Computational Statistics	
PHYS 112 & 112L	General Physics II-GTSC1 and General Physics II Laboratory-GTSC1 [2]	
PHYS 132 & 132L	Electromagnetism and Optics-GTSC1 and Electromagnetism and Optics Laboratory-GTSC1 [2]	
Total Semester Credit Hours		**9**

[1] Four hours of Restricted and General Electives must be upper division.
[2] Either PHYS 112/PHYS 112L or PHYS 132/PHYS 132L may be taken for credit, but not both.

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours. 6 semester hours; additional hours of upper division may be needed. 4 hours of Restricted and General Electives must be upper division.

Code	Title	Semester Credit Hours
Select electives		6
Total Semester Credit Hours		**6**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
MATH 151	Calculus I-GTMA1	5
Select one of the following:		4
GEOL 111 & 111L	Principles of Physical Geology-GTSC1 and Principles of Physical Geology Laboratory-GTSC1	
GEOL 113 & 113L	Field-Based Introduction to Physical Geology-GTSC1 and Field-Based Introduction to Physical Geology Laboratory-GTSC1	
Essential Learning - Humanities		3
	Semester Credit Hours	**15**
Spring Semester		
GEOL 112 & 112L	Principles of Historical Geology-GTSC1 and Principles of Historical Geology Laboratory-GTSC1	4
ENGL 112	English Composition II-GTCO2	3
Essential Learning - History		3
Essential Learning - Social and Behavioral Sciences		3
KINE 100	Health and Wellness	1
	Semester Credit Hours	**14**
Second Year		
Fall Semester		
GEOL 202	Introduction to Field Studies	3
GEOL 250	Environmental Geology	3
CHEM 131 & 131L	General Chemistry I-GTSC1 and General Chemistry Laboratory I-GTSC1	5
Select one of the following:		5
PHYS 111 & 111L	General Physics I-GTSC1 and General Physics I Laboratory-GTSC1	
PHYS 131 & 131L	Fundamental Mechanics-GTSC1 and Fundamental Mechanics Laboratory-GTSC1	
	Semester Credit Hours	**16**
Spring Semester		
GEOL 204	Computer Applications in Geology	3
STAT 200	Probability and Statistics-GTMA1	3
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - Natural Science		3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
	Semester Credit Hours	**16**
Third Year		
Fall Semester		
GEOL 301 & 301L	Structural Geology and Structural Geology Laboratory	4
GEOL 331 & 331L	Crystallography and Mineralogy and Crystallography and Mineralogy Laboratory	4
GEOL 415 & 415L	Introduction to Ground Water and Introduction to Ground Water Laboratory	4
Essential Learning - Natural Science with Lab		4
	Semester Credit Hours	**16**
Spring Semester		
GEOL 351	Applied Geochemistry	3
GEOL 414 & 414L	Hydrology and River Dynamics and Hydrology and River Dynamics Laboratory	4
Essential Learning - Fine Arts		3
General Electives		3
	Semester Credit Hours	**13**
Fourth Year		
Fall Semester		
GEOL 402 & 402L	Applications of Geomorphology and Applications of Geomorphology Laboratory	4
Restricted Electives		5
General Electives		3
	Semester Credit Hours	**12**
Spring Semester		
KINA Activity		1
GEOL 444 & 444L	Sedimentology and Stratigraphy and Sedimentology and Stratigraphy Laboratory	4
GEOL 490	Seminar	3
Restricted Electives		4
	Semester Credit Hours	**12**
Summer Semester		
GEOL 480	Summer Field Camp	6
	Semester Credit Hours	**6**
	Total Semester Credit Hours	**120**

Advising and Graduation Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are

responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Geology, Geosciences (BS)

Degree: Bachelor of Science
Major: Geosciences
Concentration: Geology
Program Code: 3472

The Bachelor of Science degree with a major in Geosciences and a concentration in Geology is designed for students who (1) desire a strong liberal arts education with emphasis on the earth sciences, (2) wish to pursue a graduate degree in geology, or (3) desire a professional or technical geoscience career.

Recent graduates are attending graduate programs at major universities or have entered the work force as geological technicians or professional geologists. Instruction takes place in a state-of-the-art science complex, which houses several instructional laboratories, a projects room, computer-applications laboratory, petrology-mineralogy laboratory, rock-storage facilities, and a sample preparation room.

Most classes have a strong field component so that students benefit from the diverse geological setting of the Grand Junction area. Equipment includes research petrographic microscopes, binocular microscopes, x-ray diffractometer, x-ray fluorescence, GPS units, local seismic network, and a magnetometer. Computer facilities include PC systems with software for communications, database management, word-processing, geographical information systems (GIS), and geostatistics.

Students engage in a capstone research project/thesis during their senior year that involves independent research and the completion of a professional report and presentation. Students develop professional skills and complete a portfolio of their work for future employers or graduate schools.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Complete a comprehensive assessment exam that draws on current research, scholarship and/or techniques, as well as specialized geology knowledge at both the beginner and advanced levels. (Specialized Knowledge/Applied Learning)
2. Analyze data critically, reason logically, and apply quantitative analysis methods correctly to geological data to develop appropriate conclusions. (Quantitative Fluency)
3. Make and defend assertions about geological hypotheses in an extended well-organized document and an oral presentation. (Communication Fluency)
4. Describe reasoned conclusions that articulate the implications and consequences for a particular decision by synthesizing geological information and geology methodologies. (Critical Thinking)
5. Reflect on and respond to ethical and environmental challenges at local, national, and/or global levels. (Personal and Social Responsibility)
6. Find relevant sources of geological information, evaluate information critically, and apply the information appropriately and effectively to geologic problems. (Information Literacy)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a

baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.

- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 151	Calculus I-GTMA1 [2]	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab [3]		4
Total Semester Credit Hours		**31**

1 Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

2 This is a 5 semester credit hour course. 3 credits apply to the Essential Learning Requirements and 2 credits apply to Foundation Courses.

3 We recommend selecting one of the following sets of courses, with BIOL 105/BIOL 105L, PHYS 132/PHYS 132L, or CHEM 132/CHEM 132L as the best choices for students interested in attending graduate school: BIOL 105/BIOL 105L, PHYS 112/PHYS 112L, PHYS 132/PHYS 132L, or CHEM 132/CHEM 132L.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

1 Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(23 semester hours, must earn a grade of "C" or better in each course)

Code	Title	Semester Credit Hours
You must take one of the following course sequences: [1]		4
GEOL 111 & 111L	Principles of Physical Geology-GTSC1 and Principles of Physical Geology Laboratory-GTSC1	
GEOL 113 & 113L	Field-Based Introduction to Physical Geology-GTSC1 and Field-Based Introduction to Physical Geology Laboratory-GTSC1	
GEOL 112 & 112L	Principles of Historical Geology-GTSC1 and Principles of Historical Geology Laboratory-GTSC1 (and)	4
CHEM 131 & 131L	General Chemistry I-GTSC1 and General Chemistry Laboratory I-GTSC1	5
You must take one of the following course sequences: [2]		5
PHYS 111 & 111L	General Physics I-GTSC1 and General Physics I Laboratory-GTSC1	
PHYS 131 & 131L	Fundamental Mechanics-GTSC1 and Fundamental Mechanics Laboratory-GTSC1	
STAT 200	Probability and Statistics-GTMA1	3
MATH 151	Calculus I-GTMA1 [3]	2
Total Semester Credit Hours		**23**

1 Either GEOL 111/GEOL 111L or GEOL 113/GEOL 113L may be taken for credit, but not both.

2 Either PHYS 111/PHYS 111L or PHYS 131/PHYS 131L may be taken for credit, but not both.

3 This is a 5 semester credit hour course. 3 credits apply to the Essential Learning Requirements and 2 credits apply to Foundation Courses.

Program Specific Degree Requirements

(48 semester hours, must earn a grade of "C" or better in each course)

Code	Title	Semester Credit Hours
Core Courses		
GEOL 202	Introduction to Field Studies	3
GEOL 204	Computer Applications in Geology	3
GEOL 301 & 301L	Structural Geology and Structural Geology Laboratory	4
GEOL 331 & 331L	Crystallography and Mineralogy and Crystallography and Mineralogy Laboratory	4
GEOL 402 & 402L	Applications of Geomorphology and Applications of Geomorphology Laboratory	4
GEOL 444 & 444L	Sedimentology and Stratigraphy and Sedimentology and Stratigraphy Laboratory	4
GEOL 480	Summer Field Camp	6
GEOL 490	Seminar	3
Required Geology Courses		
GEOL 340 & 340L	Igneous and Metamorphic Petrology and Igneous and Metamorphic Petrology Laboratory	4
GEOL 404 & 404L	Geophysics and Geophysics Laboratory	4
Total Semester Credit Hours		**39**

Code	Title	Semester Credit Hours
Restricted Electives		
Select 9 semester hours of the following: [1]		9
GEOL 325	Introduction to Engineering Geology	
GEOL 351	Applied Geochemistry	
GEOL 359	Survey of Energy-Related Natural Resources	
GEOL 361	Survey of Mineral-Related Natural Resources	
GEOL 370	Renewable Energy	
GEOL 394	Natural Resources of the West	
GEOL 411 & 411L	Paleontology and Paleontology Laboratory	
GEOL 414 & 414L	Hydrology and River Dynamics and Hydrology and River Dynamics Laboratory	
GEOL 415 & 415L	Introduction to Ground Water and Introduction to Ground Water Laboratory	
GEOL 443 & 443L	Field-Based Depositional Systems and Field-Based Depositional Systems Laboratory	
GEOL 463	Subsurface Methods	
GEOL 465	Climate Change Science	
GEOL 470	Drone Explorations on Earth	
GEOL 496	Topics	
GEOL 496L	Topics Lab	
GEOL 497	Structured Research	
CHEM 132 & 132L	General Chemistry II-GTSC1 and General Chemistry Laboratory II-GTSC1	
MATH 152	Calculus II	
STAT 301	Computational Statistics	
PHYS 112 & 112L	General Physics II-GTSC1 and General Physics II Laboratory-GTSC1 [2]	
PHYS 132 & 132L	Electromagnetism and Optics-GTSC1 and Electromagnetism and Optics Laboratory-GTSC1 [2]	
Total Semester Credit Hours		**9**

[1] Seven hours of Restricted and General Electives must be upper division.

[2] Either PHYS 112/PHYS 112L or PHYS 132/PHYS 132L may be taken for credit, but not both.

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours. 12 semester hours; additional hours of upper division may be needed. Seven hours of Restricted and General Electives must be upper division.

Code	Title	Semester Credit Hours
Select electives		12
Total Semester Credit Hours		**12**

Suggested Course Plan

First Year

Fall Semester		Semester Credit Hours
ENGL 111	English Composition I-GTCO1	3
MATH 151	Calculus I-GTMA1	5
Select one of the following:		4
GEOL 111 & 111L	Principles of Physical Geology-GTSC1 and Principles of Physical Geology Laboratory-GTSC1	
GEOL 113 & 113L	Field-Based Introduction to Physical Geology-GTSC1 and Field-Based Introduction to Physical Geology Laboratory-GTSC1	
Essential Learning - Humanities		3
	Semester Credit Hours	**15**
Spring Semester		
GEOL 112 & 112L	Principles of Historical Geology-GTSC1 and Principles of Historical Geology Laboratory-GTSC1	4
ENGL 112	English Composition II-GTCO2	3
Essential Learning - History		3
Essential Learning - Social and Behavioral Sciences		3
KINE 100	Health and Wellness	1
	Semester Credit Hours	**14**

Second Year

Fall Semester		
GEOL 202	Introduction to Field Studies	3
Essential Learning - Social and Behavioral Sciences		3
CHEM 131 & 131L	General Chemistry I-GTSC1 and General Chemistry Laboratory I-GTSC1	5
Select one of the following:		5
PHYS 111 & 111L	General Physics I-GTSC1 and General Physics I Laboratory-GTSC1	
PHYS 131 & 131L	Fundamental Mechanics-GTSC1 and Fundamental Mechanics Laboratory-GTSC1	
	Semester Credit Hours	**16**
Spring Semester		
GEOL 204	Computer Applications in Geology	3
Essential Learning - Natural Science with Lab		4
STAT 200	Probability and Statistics-GTMA1	3

ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
	Semester Credit Hours	**14**
Third Year		
Fall Semester		
Essential Learning - Natural Science		3
GEOL 301 & 301L	Structural Geology and Structural Geology Laboratory	4
GEOL 331 & 331L	Crystallography and Mineralogy and Crystallography and Mineralogy Laboratory	4
General Electives		3
	Semester Credit Hours	**14**
Spring Semester		
GEOL 340 & 340L	Igneous and Metamorphic Petrology and Igneous and Metamorphic Petrology Laboratory	4
Essential Learning - Fine Arts		3
General Electives		9
	Semester Credit Hours	**16**
Fourth Year		
Fall Semester		
GEOL 402 & 402L	Applications of Geomorphology and Applications of Geomorphology Laboratory	4
Restricted Electives		9
	Semester Credit Hours	**13**
Spring Semester		
GEOL 404 & 404L	Geophysics and Geophysics Laboratory	4
KINA Activity		1
GEOL 444 & 444L	Sedimentology and Stratigraphy and Sedimentology and Stratigraphy Laboratory	4
GEOL 490	Seminar	3
	Semester Credit Hours	**12**
Summer Semester		
GEOL 480	Summer Field Camp	6
	Semester Credit Hours	**6**
	Total Semester Credit Hours	**120**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Education: Secondary Education, Geosciences (BS)

Degree: Bachelor of Science
Major: Geosciences
Concentration: Secondary Education
Program Code: 3474

The Geosciences secondary licensure degree is structured for graduates to pursue teaching careers at the middle or high school level. The basic curriculum includes all of the major topics within a traditional geology program while also incorporating teacher education courses required for licensure by the state of Colorado. The degree plan includes basic chemistry, physics, and biology. Instruction takes place in a state of the art science complex on campus which houses several instructional laboratories, projects rooms, a computer applications lab, petrology-mineralogy lab, and rock storage facilities. Most classes include a strong field component, allowing students to take advantage of the diverse geological setting of the Grand Junction area. Students have access to department equipment that includes research petrographic microscopes, binocular microscopes, a computer-assisted x-ray diffractometer, scanning electron microscopes, GPS units, short- and long-period seismometers, and a magnetometer.

The secondary licensure program provides teacher education candidates with broad content knowledge in science and prepares them as teachers for grades 7 through 12. A minimum of 75 credit hours of Essential Learning and content area coursework must be completed with a minimum GPA of 2.80 before a candidate may apply for admission to the Center for Teacher Education secondary licensure program. Please see the Teacher Education Admission Packet for further information on admissions criteria. EDUC 115, What It Means to be an Educator, and EDUC 215, Teaching as a Profession, must be taken before applying to the program.

Important information about this degree:

- 2.80 cumulative GPA or higher in all CMU coursework.
- 2.80 cumulative GPA or higher in coursework toward the major content area.
- A "C" or higher is required in all major and foundation courses.
- All EDUC prefix courses must be completed with a grade of "B" or better.

- Students must pass the PRAXIS II exam in the content area prior to beginning the internship. Also, all other coursework toward the degree must be successfully completed prior to the internship.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Geosciences Outcome 1: Articulate the fundamental knowledge base and ideas of the major fields of geoscience. (Specialized Knowledge)
2. Geosciences Outcome 2: Collect and interpret geoscience field data. (Applied Learning/Critical Thinking)
3. Geosciences Outcome 3: Collect and interpret geoscience laboratory data. (Applied Learning/Critical Thinking)
4. Geosciences Outcome 4: Use technology (e.g. computer software) for evaluating quantitative geoscience data. (Quantitative Fluency)
5. Geosciences Outcome 5: Write an effective report on a geoscience study. (Communication Fluency)
6. Geosciences Outcome 6: Give an effective oral presentation on a geoscience study. (Communication Fluency)
7. Teacher Education Outcome 1: Demonstrate mastery of major area's content knowledge and pedagogical strategies through fieldwork with learners in professional settings. (Specialized Knowledge/Applied Learning)
8. Teacher Education Outcome 2: Design and establish a safe, inclusive, and respectful learning environment for a diverse population of students. (Specialized Knowledge/Applied Learning)
9. Teacher Education Outcome 3: Plan and deliver effective instruction to students, based on research-based pedagogical practices. (Communication Literacy/Information Literacy)
10. Teacher Education Outcome 4: Collect and analyze student assessment data and use results to inform planning and instruction. (Quantitative Fluency/Critical Thinking)
11. Teacher Education Outcome 5: Demonstrate professionalism through ethical conduct, reflection, and leadership. (Personal and Social Responsibility)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this program:

- 126 semester hours required for the BS in Geosciences, Secondary Education.
- 2.80 cumulative GPA or higher in all CMU coursework.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [2]		
MATH 113	College Algebra-GTMA1 (or higher) [3]	3
History		
Select one History course		3
Humanities		

Select one Humanities course		3
Social and Behavioral Sciences		
PSYC 233	Human Growth and Development-GTSS3 [4]	3
Select one Social and Behavioral Sciences course [5]		3
Fine Arts		
Select one Fine Arts Course		3
Natural Sciences [6]		
BIOL 105	Attributes of Living Systems-GTSC1	3
BIOL 105L	Attributes of Living Systems Laboratory-GTSC1	1
Select one Natural Science course		3
Total Semester Credit Hours		**31**

[1] Must receive a grade of "B" or better and must be completed by the time the student has 60 semester hours.
[2] Must receive a grade of "C" or better, must be completed by the time the student has 60 semester hours.
[3] This is a 4 semester credit hour course. 3 credits apply to the Essential Learning requirements and one credit applies to foundation courses.
[4] Must receive a grade of "B" or better.
[5] GEOG 103 - World Regional Geography (3) recommended.
[6] One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(17 semester hours, must earn a grade of "C" or better in each course.)

Code	Title	Semester Credit Hours
MATH 113	College Algebra-GTMA1 [1]	1
CHEM 131	General Chemistry I-GTSC1	4
CHEM 131L	General Chemistry Laboratory I-GTSC1	1
PHYS 101	Elementary Astronomy-GTSC2	3
PHYS 111	General Physics I-GTSC1	4
PHYS 111L	General Physics I Laboratory-GTSC1	1
MATH 114	Trigonometry and Analytic Geometry	3
Total Semester Credit Hours		**17**

[1] This is a 4 semester credit hour course. 3 credits apply to the Essential Learning requirements and one credit applies to foundation courses.

Program Specific Degree Requirements

(40 semester hours, must pass all courses with a grade of "C" or higher with a 2.8 accumulative GPA or higher)

- Students must pass the PRAXIS II exam in the content area prior to beginning the internship. Also, all other coursework toward the degree must be successfully completed prior to the internship.

Code	Title	Semester Credit Hours
Core Courses		
GEOL 103	Weather and Climate-GTSC2	3
or GEOL 104	Oceanography-GTSC2	
Select one of the following: [1]		4
GEOL 111 & 111L	Principles of Physical Geology-GTSC1 and Principles of Physical Geology Laboratory-GTSC1	
GEOL 113 & 113L	Field-Based Introduction to Physical Geology-GTSC1 and Field-Based Introduction to Physical Geology Laboratory-GTSC1	
GEOL 112	Principles of Historical Geology-GTSC1	3
GEOL 112L	Principles of Historical Geology Laboratory-GTSC1	1
GEOL 202	Introduction to Field Studies	3
GEOL 204	Computer Applications in Geology	3
GEOL 250	Environmental Geology	3
GEOL 301	Structural Geology	3
GEOL 301L	Structural Geology Laboratory	1
GEOL 331	Crystallography and Mineralogy	3
GEOL 331L	Crystallography and Mineralogy Laboratory	1
GEOL 340	Igneous and Metamorphic Petrology	3
GEOL 340L	Igneous and Metamorphic Petrology Laboratory	1
GEOL 402	Applications of Geomorphology	3
GEOL 402L	Applications of Geomorphology Laboratory	1
GEOL 444	Sedimentology and Stratigraphy	3
GEOL 444L	Sedimentology and Stratigraphy Laboratory	1
Total Semester Credit Hours		**40**

[1] Either GEOL 111/GEOL 111L or GEOL 113/GEOL 113L may be taken for credit, but not both.

Secondary Education Requirements

(29 semester hours, must earn a grade of "B" or better in each course.)

Program Requirements: ENGL 111, ENGL 112, PSYC 233, EDUC 115 and EDUC 215 (all with a grade of B or better) and formal acceptance to the Teacher Education Program.

Code	Title	Semester Credit Hours
EDUC 115	What It Means To Be An Educator (8 field experience hours)	1
EDUC 215	Teaching as a Profession (12 field experience hours)	1
EDUC 342	Pedagogy and Assessment: Secondary and K-12 (20 field experience hours)	3
EDUC 343	Teaching to Diversity (20 field experience hours)	3
EDUC 442	Integrating Literacy Across the Curriculum: Secondary and K-12 Art (60 field experience hours)	3
EDUC 475	Classroom Management for K-12 Educators	1
EDUC 480	Methods and Topics in Secondary Teaching	3
EDUC 480D	Methods of Teaching Secondary Science [1]	2
EDUC 499G	Teaching Internship and Colloquia: Secondary (600 field experience hours)	12
Praxis II Exam Passed		
Total Semester Credit Hours		**29**

[1] This course is only offered in the fall semester. It may be taken with either the 300-level or 400-level EDUC courses but must be taken before the student teaching semester.

All EDUC prefix courses listed above must be completed with a grade of B or better to progress through the program sequence.

Students must pass the PRAXIS II exam in the content area prior to commencing the internship. Also, ALL other coursework toward the degree must be successfully completed prior to the internship.

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours. 3 semester hours.

Code	Title	Semester Credit Hours
Select electives		3
Total Semester Credit Hours		**3**

Suggested Course Plan

First Year		
Fall Semester		
GEOL 103 or GEOL 104	Weather and Climate-GTSC2 or Oceanography-GTSC2	3
Select one of the following:		4
GEOL 111 & 111L	Principles of Physical Geology-GTSC1 and Principles of Physical Geology Laboratory-GTSC1	
GEOL 113 & 113L	Field-Based Introduction to Physical Geology-GTSC1 and Field-Based Introduction to Physical Geology Laboratory-GTSC1	
ENGL 111	English Composition I-GTCO1	3
MATH 113	College Algebra-GTMA1	4
KINE 100	Health and Wellness	1
	Semester Credit Hours	**15**
Spring Semester		
GEOL 112 & 112L	Principles of Historical Geology-GTSC1 and Principles of Historical Geology Laboratory-GTSC1	4
ENGL 112	English Composition II-GTCO2	3
PSYC 233	Human Growth and Development-GTSS3	3
MATH 114	Trigonometry and Analytic Geometry	3
GEOG 103	World Regional Geography-GTSS2	3
	Semester Credit Hours	**16**
Second Year		
Fall Semester		
GEOL 202	Introduction to Field Studies	3
GEOL 250	Environmental Geology	3
CHEM 131 & 131L	General Chemistry I-GTSC1 and General Chemistry Laboratory I-GTSC1	5
PHYS 111 & 111L	General Physics I-GTSC1 and General Physics I Laboratory-GTSC1	5
EDUC 115	What It Means To Be An Educator	1
	Semester Credit Hours	**17**
Spring Semester		
GEOL 204	Computer Applications in Geology	3
BIOL 105 & 105L	Attributes of Living Systems-GTSC1 and Attributes of Living Systems Laboratory-GTSC1	4
PHYS 101	Elementary Astronomy-GTSC2	3
Essential Learning - Fine Arts		3
Essential Learning - Natural Science		3
KINA Activity		1
	Semester Credit Hours	**17**
Third Year		
Fall Semester		
GEOL 301 & 301L	Structural Geology and Structural Geology Laboratory	4
GEOL 331 & 331L	Crystallography and Mineralogy and Crystallography and Mineralogy Laboratory	4
Essential Learning - History		3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
EDUC 215	Teaching as a Profession	1
	Semester Credit Hours	**16**
Spring Semester		
GEOL 340 & 340L	Igneous and Metamorphic Petrology and Igneous and Metamorphic Petrology Laboratory	4
GEOL 444 & 444L	Sedimentology and Stratigraphy and Sedimentology and Stratigraphy Laboratory	4
EDUC 342	Pedagogy and Assessment: Secondary and K-12	3
EDUC 343	Teaching to Diversity	3
General Elective		3
	Semester Credit Hours	**17**
Fourth Year		
Fall Semester		
GEOL 402 & 402L	Applications of Geomorphology and Applications of Geomorphology Laboratory	4
Essential Learning - Humanities		3
EDUC 442	Integrating Literacy Across the Curriculum: Secondary and K-12 Art	3
EDUC 475	Classroom Management for K-12 Educators	1
EDUC 480	Methods and Topics in Secondary Teaching	3
EDUC 480D	Methods of Teaching Secondary Science	2
	Semester Credit Hours	**16**
Spring Semester		
EDUC 499G	Teaching Internship and Colloquia: Secondary	12
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**126**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Geology, Liberal Arts (AS)

Degree: Associate of Science
Major: Liberal Arts
Emphasis: Geology
Program Code: 2431

The Associate of Science (AS) degree is designed for students who intend to continue their education and obtain a baccalaureate degree. The AS is the appropriate choice for students who will take upper division coursework in mathematics, biological sciences, and physical sciences. The degree program includes the Colorado Statewide Essential Learning Core and meets the lower division Essential Learning requirements at most public institutions in Colorado. A number of emphases are available within the AS degree. Students choosing one of these emphases will take courses in a discipline in addition to the Essential Learning core.

An Associate of Science (AS) degree with a geology emphasis is offered through the Physical and Environmental Sciences Department. This degree prepares students for employment as geological technicians in government and industry, or for entrance into the geology baccalaureate program at Colorado Mesa University or other four-year institutions. The curriculum includes basic courses in geology as well as Essential Learning courses. All of the geology courses place emphasis on the spectacular geologic features in western Colorado and eastern Utah.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Articulate the fundamental knowledge base and ideas of the major fields of geoscience. (Specialized Knowledge)
2. Collect and interpret geoscience field data. (Applied Learning)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU or CMU Tech Associate of Science (AS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours total.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade of "C" or higher must be earned in all Essential Learning courses in order to be accepted for transfer under the Colorado Core Transfer Consortium General Education curriculum or gtPathways, Colorado's guaranteed transfer program.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 15 semester credit hours for an associate of science degree. A maximum of 6 of the 15 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.

- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 113	College Algebra-GTMA1 [2]	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [3]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

1. Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.
2. This is a 4 credit hour course. 3 credits apply to the Essential Learning requirements and 1 credit applies to Required Geology Specialization courses.
3. 7 semester hours, one course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Total Semester Credit Hours		**2**

Program Specific Degree Requirements

(27 semester hours, must earn a “C” or better in each course.)

Code	Title	Semester Credit Hours
Core Courses		
Complete one of the following course pairs : [1]		4
GEOL 111 & 111L	Principles of Physical Geology-GTSC1 and Principles of Physical Geology Laboratory-GTSC1	
GEOL 113 & 113L	Field-Based Introduction to Physical Geology-GTSC1 and Field-Based Introduction to Physical Geology Laboratory-GTSC1	
GEOL 112	Principles of Historical Geology-GTSC1	3
GEOL 112L	Principles of Historical Geology Laboratory-GTSC1	1
GEOL 250	Environmental Geology	3
Required Geology Specialization Courses [2]		
MATH 113	College Algebra-GTMA1 [3]	1
GEOG 131	Introduction to Cartography	3
Select 12 additional semester hours		12
Total Semester Credit Hours		**27**

1. Either GEOL 111/GEOL 111L or GEOL 113/GEOL 113L may be taken for credit, but not both.
2. To be selected in consultation with student’s advisor.
3. This is a 4 credit hour course. 3 credits apply to the Essential Learning requirements and 1 credit applies to Required Geology Specialization courses.

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
Select one of the following:		4
GEOL 111 & 111L	Principles of Physical Geology-GTSC1 and Principles of Physical Geology Laboratory-GTSC1	
GEOL 113 & 113L	Field-Based Introduction to Physical Geology-GTSC1 and Field-Based Introduction to Physical Geology Laboratory-GTSC1	
ENGL 111	English Composition I-GTCO1	3
MATH 113	College Algebra-GTMA1 (or higher)	4
Essential Learning - Fine Arts		3
KINE 100	Health and Wellness	1
	Semester Credit Hours	**15**
Spring Semester		
GEOL 112	Principles of Historical Geology-GTSC1	3
GEOL 112L	Principles of Historical Geology Laboratory-GTSC1	1
ENGL 112	English Composition II-GTCO2	3
Essential Learning - Natural Science with lab		4
Essential Learning - Social and Behavioral Sciences		3
Wellness Requirement - KINA Activities Course		1
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
GEOL 250	Environmental Geology	3
Geology Specialization Selection		3
Essential Learning - Humanities		3
Essential Learning - Natural Science without lab		3

GEOG 131	Introduction to Cartography	3
	Semester Credit Hours	**15**
Spring Semester		
Geology Specialization Selection [1]		5
Geology Specialization Selection		4
Essential Learning - History		3
Essential Learning - Social and Behavioral Sciences		3
	Semester Credit Hours	**15**
	Total Semester Credit Hours	**60**

[1] Students that intend to continue with Colorado Mesa University should take ESSL 290 and ESSL 200 during the final semester of their Associate of Science work.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Geology (Minor)

Minor: Geology

Program Code: M420

The Geology Minor is designed for students who wish to take additional basic geology courses in support of their degree aspirations in other areas. A total of 21 geology credit hours are required. Most classes have a strong field component so that students can enjoy the diverse geological setting of the Grand Junction area. Laboratory work takes place in a state-of-the-art science complex.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(21 semester hours)

Code	Title	Semester Credit Hours
Select one of the following: [1]		4
GEOL 111 & 111L	Principles of Physical Geology-GTSC1 and Principles of Physical Geology Laboratory-GTSC1	
GEOL 113 & 113L	Field-Based Introduction to Physical Geology-GTSC1 and Field-Based Introduction to Physical Geology Laboratory-GTSC1	
GEOL 112 & 112L	Principles of Historical Geology-GTSC1 and Principles of Historical Geology Laboratory-GTSC1	4
GEOL 202	Introduction to Field Studies	3
Select one of the following: [2]		3
GEOL 204	Computer Applications in Geology	
GEOL 250	Environmental Geology	
Select 7 semester hours (minimum) of the following:		7
GEOL 301 & 301L	Structural Geology and Structural Geology Laboratory	
GEOL 325	Introduction to Engineering Geology	
GIST 321 & 321L	Introduction to Remote Sensing and Introduction to Remote Sensing Laboratory	
GEOL 331 & 331L	Crystallography and Mineralogy and Crystallography and Mineralogy Laboratory	
GEOL 340 & 340L	Igneous and Metamorphic Petrology and Igneous and Metamorphic Petrology Laboratory	
GEOL 351	Applied Geochemistry	
GEOL 359	Survey of Energy-Related Natural Resources	
GEOL 361	Survey of Mineral-Related Natural Resources	
GEOL 402 & 402L	Applications of Geomorphology and Applications of Geomorphology Laboratory	
GEOL 404 & 404L	Geophysics and Geophysics Laboratory	
GEOL 411 & 411L	Paleontology and Paleontology Laboratory	
GEOL 444 & 444L	Sedimentology and Stratigraphy and Sedimentology and Stratigraphy Laboratory	
GEOL 463	Subsurface Methods	
GEOL 465	Climate Change Science	
GEOL 470	Drone Explorations on Earth	
Total Semester Credit Hours		**21**

[1] Either GEOL 111/GEOL 111L or GEOL 113/GEOL 113L may be taken for credit, but not both.

[2] Either GEOL 204 or GEOL 250 may be taken for credit, but not both.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the "Intent to Graduate" form.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Watershed Science (Minor)

Minor: Watershed Science
Program Code: M470

The minor in watershed science is an interdisciplinary program designed to serve the regional need for scientists with a strong background in water-related issues (e.g., Bureau of Land Management, U.S. Geological Survey, U.S. Forest Service, U.S. Fish and Wildlife Service, and the Colorado Division of Wildlife). Some government agencies, such as the U.S. Forest Service, are shifting their management organization to focus on watersheds, and this minor supports needs in this area.

The minor will complement majors in Physical and Environmental Science and Biology by providing students in these (or related) fields focused coursework on the three critical components of watershed science: surface water, groundwater, and water chemistry. Combined with the relevant B.S., plus additional calculus and physics courses, the minor satisfies the federal government's requirements for qualification as a "hydrologist." The proximity of Colorado Mesa University to the Colorado, Gunnison, and Green Rivers, the drainages of the Colorado National Monument, and the high arroyos create an ideal location for the study of watershed science.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(18 semester hours)

Code	Title	Semester Credit Hours
GEOL 414 & 414L	Hydrology and River Dynamics and Hydrology and River Dynamics Laboratory	4
GEOL 415 & 415L	Introduction to Ground Water and Introduction to Ground Water Laboratory	4
ENVS 331 & 331L	Water Quality and Water Quality Laboratory	4
Choose six semester hours (minimum) from the list below:		6
BIOL 414 & 414L	Freshwater Ecology and Freshwater Ecology Laboratory	
CHEM 300	Environmental Chemistry	
ENVS 312 & 312L	Soil Science and Sustainability and Soil Science and Sustainability Laboratory	
ENVS 337 & 337L	Stream Biomonitoring and Stream Biomonitoring Laboratory	
ENVS 410	Environmental Regulatory Compliance	
ENVS 431	Water and Wastewater Treatment	
ENVS 433	Restoration of Aquatic Systems	
GEOL 394	Natural Resources of the West	
GEOL 402 & 402L	Applications of Geomorphology and Applications of Geomorphology Laboratory	
GEOL 463	Subsurface Methods	
GEOL 465	Climate Change Science	
GEOL 470	Drone Explorations on Earth	
GIST 332 & 332L	Introduction to Geographic Information Systems and Introduction to Geographic Information Systems Laboratory	
Total Semester Credit Hours		**18**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the "Intent to Graduate" form.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Gerontology

Program Description

The Gerontology program focuses on the psychological and social impact of aging. It provides theoretical and practical experiences of human services, policies and programs related to the aging population and the aging brain for the student to gain access to entry-level positions in the field. The program provides a variety of subjects in community activities, cogitative behavior of the elderly, Alzheimer's, and end-of-life care. Graduates of this program may find careers in social services, community services for the elderly, housing authorities, nursing homes, private home care programs, and other public agencies.

The Associate of Applied Science (AAS) in Gerontology Specialist program is no longer accepting new students. Students **may** still register for the Gerontology technical certificates in Behavioral and Cognitive Care and End of Life Care.

Contact Information

CMU Tech
Office of Student Services, Kayenta Hall 102
2508 Blichmann Avenue
970.255.2670

Programs of Study

Associates

- Gerontology Specialist (AAS) (p. 478)

Certificates

- Behavioral and Cognitive Care, Gerontology (Technical Certificate) (p. 480)
- End of Life Care, Gerontology (Technical Certificate) (p. 481)

Gerontology Specialist (AAS)

Degree: Associate of Applied Science
Major: Gerontology Specialist
Program Code: 1305

This program is no longer accepting new students.

The Gerontology program is for individuals who wish to develop careers in the field of aging, those already employed or active in gerontology or related fields who wish to enhance their career paths, and those seeking challenging and meaningful career changes in response to new opportunities created by an aging society.

The coursework for the AAS Degree, provides a foundation for gerontology knowledge and application with a biopsychosocial perspective on the aging process. It focuses on preparation for positions in organizations that provide services, care, and programs for senior adults; though typically, another degree or additional education/experience is warranted for such positions. It also provides applicable learning and relevancy as an additional degree, valuable to Health Science and Social/Behavioral Science majors who want to specialize in working with the elderly population.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Apply biopsychosocial gerontological knowledge to case studies and real-life situations involving older persons. (Specialized Knowledge/Applied Learning)
2. Present and explain effective interventions, practices, or activities promoting an older person's strengths and adaptations to maximize well-being, health and mental health. (Communication Fluency)
3. Critically evaluate arguments regarding issues and controversies within the field of aging and present a position, supporting it with evidence. (Critical Thinking)
4. Associate social conditions in the current and recent past with their potential impact on future aging cohorts. (Personal and Social Responsibility)
5. Evaluate the impact of diversity in terms of race, gender, ethnicity, religion, and citizenship on aging outcomes nationally and globally, citing sources of information. (Information Literacy)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.

- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this degree:

- 63 semester hours total for the AAS, Gerontology Specialist.

Essential Learning Requirements

(16 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
Communication		
ENGL 111	English Composition I-GTCO1	3
Select one of the following:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communication	
SPCH 102	Speechmaking	
Mathematics		
MATH 107	Career Math (or higher)	3
Other Essential Learning Core Courses		
PSYC 233	Human Growth and Development-GTSS3	3
BIOL 101 & 101L	General Human Biology-GTSC1 and General Human Biology Laboratory-GTSC1	4
Total Semester Credit Hours		**16**

Other Lower Division Requirements

(2 semester hours)

Code	Title	Semester Credit Hours
Wellness Requirements		
KINE 100	Health and Wellness	1
Select one Activity course		1
Total Semester Credit Hours		**2**

Program Specific Degree Requirements

(45 semester hours)

Code	Title	Semester Credit Hours
GRNT 110	Introduction to Gerontology	3
GRNT 125	Community Resources for Older Adults	3
GRNT 175	The Aging Mind	3
GRNT 176	Cognitive Activity Design	2
GRNT 181	Exploring the Field of Aging	2
GRNT 207	Ethics and Aging	3
GRNT 233	Supporting End of Life	3
GRNT 234	Hospice Care	1
GRNT 235	Introduction to Dementia Care	3
GRNT 236	Dementia Care Practices	1
GRNT 240	Care and Service Coordination	3
GRNT 245	Health and Aging	3
GRNT 246	Aging and Mental Health	3
GRNT 247	Applied Legal and Policy Issues in Aging	3
GRNT 250	Death: Cross-Cultural Perspectives	3
GRNT 280	Management of Senior Living Communities	3
GRNT 299	Internship	3
Total Semester Credit Hours		**45**

Suggested Course Plan

(63 Hours Required)

First Year		
Fall Semester		**Semester Credit Hours**
BIOL 101 & 101L	General Human Biology-GTSC1 and General Human Biology Laboratory-GTSC1	4
ENGL 111	English Composition I-GTCO1	3
MATH 107	Career Math	3
GRNT 110	Introduction to Gerontology	3
GRNT 181	Exploring the Field of Aging	2
KINE 100	Health and Wellness	1
	Semester Credit Hours	**16**
Spring Semester		
Select one of the following:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communication	
SPCH 102	Speechmaking	
PSYC 233	Human Growth and Development-GTSS3	3
GRNT 125	Community Resources for Older Adults	3
GRNT 207	Ethics and Aging	3
GRNT 245	Health and Aging	3
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
GRNT 175	The Aging Mind	3
GRNT 176	Cognitive Activity Design	2
GRNT 233	Supporting End of Life	3
GRNT 234	Hospice Care	1
GRNT 240	Care and Service Coordination	3
GRNT 247	Applied Legal and Policy Issues in Aging	3
KINA Activity Course		1
	Semester Credit Hours	**16**
Spring Semester		
GRNT 235	Introduction to Dementia Care	3
GRNT 236	Dementia Care Practices	1
GRNT 246	Aging and Mental Health	3
GRNT 250	Death: Cross-Cultural Perspectives	3
GRNT 280	Management of Senior Living Communities	3

GRNT 299	Internship	3
	Semester Credit Hours	**16**
	Total Semester Credit Hours	**63**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Behavioral and Cognitive Care, Gerontology (Technical Certificate)

Award: Technical Certificate
Program of Study: Gerontology
Specialization: Behavioral and Cognitive Care
Program Code: 1165

The Gerontology program is for individuals who wish to develop careers in the field of aging, those already employed or active in gerontology or related fields who wish to enhance their career paths, and those seeking challenging and meaningful career changes in response to new opportunities created by an aging society.

The coursework for this Technical Certificate provides an emphasis on gaining gerontology knowledge and application pertaining to the aging mind, dementia care, and mental health of older adults. It also provides applicable learning and relevancy as an additional certificate, valuable to Health Science and Social/Behavioral Science majors who want to specialize in working with the elderly population.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Discuss and synthesize the aging process from a biological, psychological, and sociological perspective to build a foundation of gerontology knowledge.(Specialized Knowledge/Applied Learning)
2. Critically evaluate arguments regarding issues and controversies within the field of aging and present a position, supporting it with evidence. (Critical Thinking)
3. Present and explain effective interventions, practices, or activities promoting an older persons' strengths and adaptations to maximize well-being, health and mental health. (Communication Fluency)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.

- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(15 semester hours)

Code	Title	Semester Credit Hours
GRNT 110	Introduction to Gerontology	3
GRNT 175	The Aging Mind	3
GRNT 176	Cognitive Activity Design	2
GRNT 235	Introduction to Dementia Care	3
GRNT 236	Dementia Care Practices	1
GRNT 246	Aging and Mental Health	3
Total Semester Credit Hours		**15**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
GRNT 110	Introduction to Gerontology	3
GRNT 175	The Aging Mind	3
GRNT 176	Cognitive Activity Design	2
	Semester Credit Hours	**8**
Spring Semester		
GRNT 235	Introduction to Dementia Care	3
GRNT 236	Dementia Care Practices	1
GRNT 246	Aging and Mental Health	3
	Semester Credit Hours	**7**
	Total Semester Credit Hours	**15**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

End of Life Care, Gerontology (Technical Certificate)

Award: Technical Certificate
Program of Study: Gerontology
Specialization: End of Life Care
Program Code: 1166

The Gerontology program is for individuals who wish to develop careers in the field of aging, those already employed or active in gerontology or related fields who wish to enhance their career paths, and those seeking challenging and meaningful career changes in response to new opportunities created by an aging society.

The coursework for this Technical Certificate provides an emphasis on gaining gerontology knowledge and application pertaining to the aging process as well as palliative care and support when death is imminent. It also provides applicable learning and relevancy as an additional certificate, valuable to Health Science and Social/Behavioral Science majors who want to specialize in working with the elderly population.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Discuss and synthesize the aging process from a biological, social, and medical perspective to build a foundation of gerontology knowledge. (Specialized Knowledge/Applied Learning)

2. Describe at least three biological and three social theories used to predict how an individual might respond to the aging process, old age, or end of life. (Critical Thinking)
3. Present and explain effective interventions, practices, or therapies supporting family members and dying persons through the end-of-life process. (Communication Fluency)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than “C” will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(13 semester hours)

Code	Title	Semester Credit Hours
GRNT 110	Introduction to Gerontology	3
GRNT 233	Supporting End of Life	3
GRNT 234	Hospice Care	1
GRNT 245	Health and Aging	3
GRNT 250	Death: Cross-Cultural Perspectives	3
Total Semester Credit Hours		**13**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
GRNT 110	Introduction to Gerontology	3
GRNT 233	Supporting End of Life	3
GRNT 234	Hospice Care	1
	Semester Credit Hours	**7**
Spring Semester		
GRNT 245	Health and Aging	3
GRNT 250	Death: Cross-Cultural Perspectives	3
	Semester Credit Hours	**6**
	Total Semester Credit Hours	**13**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student’s responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar’s Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar’s Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the “Intent to Graduate” form to the Registrar’s Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Graphic Design

Program Description

The Bachelor of Fine Arts degree with a Graphic Design major focuses on design as a professional craft and as a vehicle for communication and connecting with society. Students learn to see design as a visual language and force for cultural change within our world by giving them the tools to enhance the visual experience of the public. Course work includes color theory, drawing, traditional illustration, digital illustration, composition, typography, letterpress, identity design, web design and UX Design. All course work focuses on the best practices for designers to meet the needs of the profession. The degree concludes with a portfolio development course and the successful degree candidate is prepared to enter professions within graphic design including advertising, branding, packaging design, identity design, illustration, digital design, web design and a myriad of related fields.

Transfer students, like all students pursuing a degree in Graphic Design, are expected to complete and pass a Sophomore Review before being formally admitted into the program. Admission in the program will be contingent upon the student satisfying the following requirements: (a) Completion of the Graphic Design Admission Application Form; (b) Coursework at CMU in or transfer credits equivalent to ARTE 101 Two-Dimensional Design, ARTE 102 Three-Dimensional Design, ARTS 151 Foundation Drawing I, ARTG 215 Graphic Design I, and ARTG 221 Graphic Design II, with a grade of B or A in each course; (c) Successful completion of the Graphic Design Entrance Exam with a minimum score of 80%; and (d) a Portfolio Review comprised of Graphic Design work showing competency in 200-level graphic design, typography and layout skills.

The graphic design minor acquaints students with some of the core elements related to the study and profession of graphic design. Courses will consist of both academic lecture and practical studio. This minor provides students an opportunity to integrate personal creativity with any specified major degree. A background in graphic design can promote a variety of professional opportunities including areas of applied design, public relations, business graphics, product design, marketing and advertising.

Please see a faculty advisor and the programs listed under Programs of Study for program requirement details.

Contact Information

Department of Art and Design
Fine Arts 200
970.248.1833

Programs of Study Bachelors/Minors

- Graphic Design (BFA) (p. 484)
- Graphic Design (Minor) (p. 492)
- Visual Design, Graphic Design (BFA) (p. 487)

Associates

- Graphic Design (AA) (p. 490)

Graphic Design (BFA)

Overview

Degree: Bachelor of Fine Arts
Major: Graphic Design
Program Code: 3283

The Graphic Design major emphasizes current and professional industry standards, combining traditional hands-on techniques with digital media to prepare students for the dynamic world of design. The program mirrors the fast-paced environment of real-world design studios, focusing on UX/UI, web design, layout design, composition, typography, screen printing, drawing, graphic design history, and contemporary production technology, all integrated with conceptual skills to make graduates highly marketable.

Entry into the program is contingent upon a successful portfolio review and achieving a grade of "B" or higher in required major courses. As students progress, a portfolio capstone course prepares them for employment by helping them build a professional portfolio designed to secure jobs in the field. The program features two state-of-the-art graphic design labs, each equipped with Apple computers and the latest industry-standard software. Students are encouraged to participate in student design activities and attend local, national, and international field trips.

Students are advised to follow course sequencing closely and consult with their advisor to complete the degree within four years. Graduates of the program are well-prepared for a wide range of opportunities in the design industry, including roles as in-house designers, agency creatives, independent contractors, and both in-person or remote positions, across fields such as advertising, web design, package design, illustration, marketing, and more.

Important Program Information:

- No more than 6 semester hours of independent study courses can be applied toward the degree.
- Apple-Based Technology: In alignment with industry standards, Apple computers are exclusively used in computer-based ARTG courses. Students are encouraged to consider purchasing an Apple computer and relevant design software for personal use.
- ARTG 300-level and 400-level courses are available upon acceptance into the Graphic Design Program.

Program Admission Requirements:

- Completion of ARTE 101 Two-Dimensional Design or ARTE 103 Digital Art and Design, ARTE 102 Three-Dimensional Design, ARTG 112 Graphic Design I, and ARTG 221 Graphic Design II with a grade of B or higher.
- Successful completion of a design portfolio review that meets the program's established criteria.
- Grade of B or higher in all major coursework.
- Completion of the Graphic Design Admission Application Form.
- Transfer students must complete the portfolio review to be formally accepted into the program.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Interpret and apply formal elements and principles of design. (Specialized Knowledge)
2. Demonstrate proper use of tools, materials, techniques, and proper use and care for equipment through quality craftsmanship. (Specialized Knowledge and Quantitative Literacy)
3. Generate individual response through concept and relevant sources of information to create personal content. (Communication Fluency and Information Literacy)
4. Communicate clearly regarding the critical analysis of art and design both historical and contemporary. (Critical Thinking/ Communication Fluency)
5. Reflect on and respond to ethical, social, civil, and/or environmental challenges as they relate to art, design, and new media. (Personal and Social Responsibility)
6. Determine the best medium, methods and artistic strategies for evaluating information critically and develop a message by finding relevant sources of information, and applying the information effectively to visual culture. (Information Literacy)
7. Design and publish a professional portfolio that meets current industry standards. (Specialized Knowledge)
8. Demonstrate technical, aesthetic, and conceptual decisions based on the application of the design process. (Specialized Knowledge)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.

- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this program:

- No more than 6 semester hours of independent study courses can be applied toward the degree.
- Apple-Based Technology: In alignment with industry standards, Apple computers are exclusively used in computer-based ARTG courses. Students are encouraged to consider purchasing an Apple computer and relevant design software for personal use.
- ARTG 300-level and 400-level courses are available upon acceptance into the Graphic Design Program.
- Admission to the program requires the following:
  - Completion of ARTE 101 Two-Dimensional Design or ARTE 103 Digital Art and Design, ARTE 102 Three-Dimensional Design, ARTG 112 Graphic Design I, and ARTG 221 Graphic Design II with a grade of B or higher.
  - Successful completion of a design portfolio review that meets the program's established criteria.
  - Grade of B or higher in all major coursework.
  - Completion of the Graphic Design Admission Application Form.
  - Transfer students must complete the portfolio review to be formally accepted into the program.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 110	Mathematical Investigations-GTMA1	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [2]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

[1] Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

[2] One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(15 semester hours, must pass all courses with a grade of "B" or higher.)

Code	Title	Semester Credit Hours
ARTE 101	Two-Dimensional Design-GTAH1	3
or ARTE 103	Digital Art and Design-GTAH1	
ARTE 102	Three-Dimensional Design-GTAH1	3
ARTE 118	History of Art, Prehistory to Renaissance-GTAH1	3
ARTE 119	History of Art, Renaissance to Present-GTAH1	3
ARTS 151	Foundation Drawing I	3
Total Semester Credit Hours		**15**

Program Specific Degree Requirements

(48 semester hours. To continue in the program and eventually graduate as graphic design majors a student must earn, within no more than three attempts, at least a grade of "B" in the major requirements.)

Code	Title	Semester Credit Hours
Art History Course		
ARTH 324	History of Graphic Design	3
Graphic Design Courses		
ARTG 112	Graphic Design I	3
ARTG 120	UX Design I	3
ARTG 221	Graphic Design II	3

ARTG 222	Illustration Principles	3
ARTG 226	Motion Graphics	3
ARTG 290	UX Design II	3
ARTG 292	Letterforms and Typography	3
ARTG 305	UX Design III	3
ARTG 321	Advanced Typography	3
ARTG 334	Package Design	3
ARTG 350	Identity Design	3
ARTG 360	Sketchbook	3
ARTG 373	Screen Printing for Graphic Design	3
ARTG 438	Brand Design	3
ARTG 493	Portfolio Development	3
Total Semester Credit Hours		**48**

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours. 20 semester hours, including 13 semester hour of upper division, may be needed. Please meet with faculty advisor to discuss available electives.

Code	Title	Semester Credit Hours
General Electives		20
Total Semester Credit Hours		**20**

Suggested Course Plan

First Year		
Fall Semester		
ARTE 101 or ARTE 103	Two-Dimensional Design-GTAH1 or Digital Art and Design-GTAH1	3
ARTG 112	Graphic Design I	3
ARTS 151	Foundation Drawing I	3
ENGL 111	English Composition I-GTCO1	3
MATH 110	Mathematical Investigations-GTMA1	3
	Semester Credit Hours	**15**
Spring Semester		
ARTE 102	Three-Dimensional Design-GTAH1	3
ARTE 118	History of Art, Prehistory to Renaissance-GTAH1	3
ARTG 120	UX Design I	3
ENGL 112	English Composition II-GTCO2	3
Essential Learning - Social and Behavioral Sciences		3
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
ARTE 119	History of Art, Renaissance to Present-GTAH1	3
ARTG 221	Graphic Design II	3
ARTG 222	Illustration Principles	3
Essential Learning - History		3
Essential Learning - Natural Science with Lab		4
	Semester Credit Hours	**16**
Spring Semester		
ARTG 290	UX Design II	3
ARTG 226	Motion Graphics	3
ARTG 292	Letterforms and Typography	3
ESSL 200	Essential Speech	1
ESSL 290	Maverick Milestone	3
General Electives (3 hours)		3
	Semester Credit Hours	**16**
Third Year		
Fall Semester		
ARTG 321	Advanced Typography	3
ARTG 360	Sketchbook	3
ARTH 324	History of Graphic Design	3
KINE 100	Health and Wellness	1
General Electives (3 hours)		3
	Semester Credit Hours	**13**
Spring Semester		
ARTG 334	Package Design	3
ARTG 350	Identity Design	3
Essential Learning - Humanities		3
Essential Learning - Natural Science		3
General Electives (3 hours)		3
KINA Activity		1
	Semester Credit Hours	**16**
Fourth Year		
Fall Semester		
ARTG 305	UX Design III	3
ARTG 373	Screen Printing for Graphic Design	3
ARTG 438	Brand Design	3
Essential Learning - Social and Behavioral Sciences		3
General Electives (3 hours)		3
	Semester Credit Hours	**15**
Spring Semester		
ARTG 493	Portfolio Development	3
General Electives (8 hours)		8
Essential Learning - Fine Arts		3
	Semester Credit Hours	**14**
	Total Semester Credit Hours	**120**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.

- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Visual Design, Graphic Design (BFA)

Degree: Bachelor of Fine Arts
Major: Graphic Design
Concentration: Visual Design
Program Code: 3274

This program is no longer accepting new students.

The Graphic Design–Visual Design concentration focuses on current and professional industry standards within graphic design. Our degree is illustration-based and combines traditional hands-on media with the digital. The program, like the professional world is a fast-paced environment that mimics real-world design studios. Students will learn traditional layout design, composition, screenprinting, drawing, graphic design art history, CNC routing all as it applies to design. These areas are all combined with conceptual skills to make graduates in the area marketable. Entry in the program is contingent upon the successful completion of a portfolio review and exam during the sophomore year. A portfolio capstone course prepares students upon graduation for employment with a portfolio designed to gain employment. The program boasts two Graphic Design computer labs each furnished with Apple computers and the latest graphic design application software. Students can be a part of a community of student designers involved in a graphic design activities and field trips locally, nationally and abroad.

Entering students are encouraged to pay close attention to course sequencing and consult their advisor in order to complete the degree in four years. The successful Graphic Design degree candidate is prepared to enter professions within graphic design including advertising design, web design, package design, illustration, marketing and a myriad of related fields.

Important information about this program:

- No more than 6 semester hours of independent study courses can be used toward the degree.
- KINA Activity courses can NOT be used to fulfill general elective credit requirements.
- In an effort to meet industry standards, Macintosh computers are used exclusively in all computer-based ARTG courses. Majors are strongly advised to consider purchasing a Macintosh and related print and web publication software for personal use.
- ARTG 300-level courses and ARTG 400-level courses may be taken upon acceptance into the Graphic Design Program.
- Admission in the program after the sophomore year will be contingent upon the student's satisfying the following requirements:
  - Completion of Graphic Design Admission Application Form.
  - Completion of ARTE 101 Two-Dimensional Design or ARTE 103 Digital Art and Design, ARTE 102 Three-Dimensional Design, ARTG 112 Graphic Design I, ARTG 221 Graphic Design II, and ARTG 222 Illustration I with a grade of B or A.
  - A grade of B or A in all coursework in the major.
  - Successful completion of the Graphic Design entrance exam with a minimum score of 80%.
  - Portfolio Review comprised of Graphic Design work that meets the established Portfolio Review Criteria.
  - Transfer students must pass the Portfolio Review and entrance exam to be formally accepted into the Graphic Design Program.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Interpret and apply formal elements and principles of design. (Specialized Knowledge)
2. Demonstrate proper use of tools, materials, techniques, and proper use and care for equipment through quality craftsmanship. (Applied Learning)
3. Generate individual response through concept and relevant sources of information to create personal content. (Communication Fluency and Information Literacy)
4. Communicate clearly regarding the critical analysis of art and design both historical and contemporary. (Critical Thinking/ Communication Fluency)
5. Reflect on and respond to ethical, social, civil, and/or environmental challenges as they relate to art, design, and new media. (Personal and Social Responsibility)
6. Design and publish a professional portfolio that meets current industry standards. (Applied Learning)
7. Demonstrate technical, aesthetic, and conceptual decisions based on the application of the design process. (Specialized Knowledge)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 110	Mathematical Investigations-GTMA1	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [2]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

[1] Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.
[2] One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(15 semester hours, must pass all courses with a grade of "B" or higher.)

Code	Title	Semester Credit Hours
ARTE 101	Two-Dimensional Design-GTAH1	3
or ARTE 103	Digital Art and Design-GTAH1	
ARTE 102	Three-Dimensional Design-GTAH1	3
ARTE 118	History of Art, Prehistory to Renaissance-GTAH1	3
ARTE 119	History of Art, Renaissance to Present-GTAH1	3
ARTS 151	Foundation Drawing I	3
Total Semester Credit Hours		**15**

Program Specific Degree Requirements

(54 semester hours. To continue in the program and eventually graduate as graphic design majors a student must earn, within no more than three attempts, at least a grade of "B" in the major requirements.)

Code	Title	Semester Credit Hours
Art History Course		
ARTH 324	History of Graphic Design	3
Graphic Design Courses		
ARTG 112	Graphic Design I	3
ARTG 120	UX Design I	3
ARTG 221	Graphic Design II	3
ARTG 222	Illustration Principles	3
ARTG 290	UX Design II	3
ARTG 292	Letterforms and Typography	3

ARTG 301	Digital Illustration	3
ARTG 305	UX Design III	3
ARTG 321	Advanced Typography	3
ARTG 333	Illustration Methods	3
ARTG 337	Illustration Exploration	3
ARTG 350	Identity Design	3
ARTG 360	Sketchbook	3
ARTG 401	Digital Painting	3
ARTG 406	UX Design IV	3
ARTG 438	Brand Design	3
ARTG 493	Portfolio Development	3
Total Semester Credit Hours		**54**

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours. Excludes KINA activity courses. 11 semester hours, including 1 semester hour of upper division, may be needed.

Code	Title	Semester Credit Hours
Select electives		11
Total Semester Credit Hours		**11**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ARTS 151	Foundation Drawing I	3
ARTG 122		3
ARTE 101 or ARTE 103	Two-Dimensional Design-GTAH1 or Digital Art and Design-GTAH1	3
ENGL 111	English Composition I-GTCO1	3
MATH 110	Mathematical Investigations-GTMA1	3
	Semester Credit Hours	**15**
Spring Semester		
ARTE 102	Three-Dimensional Design-GTAH1	3
ARTE 118	History of Art, Prehistory to Renaissance-GTAH1	3
ARTG 112	Graphic Design I	3
ENGL 112	English Composition II-GTCO2	3
Essential Learning - Social and Behavioral Sciences		3
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
ARTG 221	Graphic Design II	3
ARTG 222	Illustration Principles	3
ARTG 120	UX Design I	3
Essential Learning - History		3
Essential Learning - Natural Science with Lab		4
	Semester Credit Hours	**16**
Spring Semester		
ARTG 290	UX Design II	3
ARTG 292	Letterforms and Typography	3
ARTG 301	Digital Illustration	3
ARTG 333	Illustration Methods	3
ESSL 200	Essential Speech	1
ESSL 290	Maverick Milestone	3
	Semester Credit Hours	**16**
Third Year		
Fall Semester		
ARTE 119	History of Art, Renaissance to Present-GTAH1	3
ARTG 321	Advanced Typography	3
ARTG 360	Sketchbook	3
ARTG 401	Digital Painting	3
ARTH 324	History of Graphic Design	3
KINE 100	Health and Wellness	1
	Semester Credit Hours	**16**
Spring Semester		
ARTG 337	Illustration Exploration	3
ARTG 438	Brand Design	3
ARTG 305	UX Design III	3
Essential Learning - Humanities		3
KINA Activity		1
Essential Learning - Natural Science		3
	Semester Credit Hours	**16**
Fourth Year		
Fall Semester		
ARTG 406	UX Design IV	3
ARTG 350	Identity Design	3
Essential Learning - Social and Behavioral Sciences		3
General Electives (6 hours)		6
	Semester Credit Hours	**15**
Spring Semester		
ARTG 493	Portfolio Development	3
General Electives (5 hours)		5
Essential Learning - Fine Arts		3
	Semester Credit Hours	**11**
	Total Semester Credit Hours	**120**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.

- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Graphic Design (AA)

Overview

Degree: Associate of Arts
Major: Graphic Design
Program Code: 2226

The AA in Graphic Design emphasizes current industry standards, combining foundational skills with digital media to prepare students for the dynamic world of design. This two-year program introduces a range of essential design areas, including UX/UI, web design, layout design, composition, typography, screen printing, drawing, graphic design history, and contemporary production technology. By integrating conceptual and practical skills, the program ensures that graduates are ready for entry-level roles or further study in the design field.

Admission to the program requires a successful portfolio review. The program provides access to two state-of-the-art design labs equipped with Apple computers and the latest design software, giving students hands-on experience with industry-standard tools.

Students are encouraged to consult with advisors and follow the recommended course sequencing to complete the degree in two years. Graduates of the program are well-prepared for a variety of entry-level positions in design, including roles as in-house designers, agency assistants, independent contractors, and other roles in fields such as advertising, web design, package design, illustration, and marketing.

Important Program Information:

- Apple-Based Technology: In alignment with industry standards, Apple computers are exclusively used in computer-based ARTG courses. Students are encouraged to consider purchasing an Apple computer and relevant design software for personal use.

Program Admission Requirements:

- Completion of ARTE 101 Two-Dimensional Design or ARTE 103 Digital Art and Design, ARTE 102 Three-Dimensional Design, ARTG 112 Graphic Design I, and ARTG 221 Graphic Design II with a grade of B or higher.
- Successful completion of a design portfolio review that meets the program's established criteria.
- Grade of B or higher in all major coursework.
- Completion of the Graphic Design Admission Application Form.
- Transfer students must complete the portfolio review to be formally accepted into the program.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Interpret and apply formal elements and principles of design. (Specialized Knowledge)
2. Demonstrate proper use of tools, materials, techniques, and proper use and care for equipment through quality craftsmanship. (Specialized Knowledge and Quantitative Literacy)
3. Generate individual response through concept and relevant sources of information to create personal content. (Communication Fluency and Information Literacy)
4. Communicate clearly regarding the critical analysis of art and design both historical and contemporary. (Critical Thinking/ Communication Fluency)
5. Reflect on and respond to ethical, social, civil, and/or environmental challenges as they relate to art, design, and new media. (Personal and SocialResponsibility)
6. Determine the best medium, methods and artistic strategies for evaluating information critically and developing a message by finding relevant sources of information, and applying the information effectively to visual culture. (Information Literacy)

Requirements

The following institutional degree requirements apply to all CMU or CMU Tech Associate of Arts (AA) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours total.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade of "C" or higher must be earned in all Essential Learning courses in order to be accepted for transfer under the Colorado Core Transfer Consortium General Education curriculum or gtPathways, Colorado's guaranteed transfer program.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 15 semester credit hours for an AA degree. A maximum of 6 of the 15 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.

- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU or CMU Tech Associate of Arts (AA) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours total.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade of “C” or higher must be earned in all Essential Learning courses in order to be accepted for transfer under the Colorado Core Transfer Consortium General Education curriculum or gtPathways, Colorado’s guaranteed transfer program.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 15 semester credit hours for an AA degree. A maximum of 6 of the 15 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Specific to this program:

- Apple-Based Technology: In alignment with industry standards, Apple computers are exclusively used in computer-based ARTG courses. Students are encouraged to consider purchasing an Apple computer and relevant design software for personal use.
- Admission to the program requires the following:
  - Completion of ARTE 101 Two-Dimensional Design or ARTE 103 Digital Art and Design, ARTE 102 Three-Dimensional Design, ARTG 112 Graphic Design I, and ARTG 221 Graphic Design II with a grade of B or higher.
  - Successful completion of a design portfolio review that meets the program’s established criteria.
  - Grade of B or higher in all major coursework.
  - Completion of the Graphic Design Admission Application Form.
  - Transfer students must complete the portfolio review to be formally accepted into the program.

Program Specific Certificate Requirements

(27 semester hours. To continue in the program and eventually graduate, a student must earn, within no more than three attempts, at least a grade of “B” in the major requirements.)

Code	Title	Semester Credit Hours
ARTE 102	Three-Dimensional Design-GTAH1	3
ARTE 103 or ARTE 101	Digital Art and Design-GTAH1 Two-Dimensional Design-GTAH1	3
ARTG 112	Graphic Design I	3
ARTG 120	UX Design I	3
ARTG 221	Graphic Design II	3
ARTG 222	Illustration Principles	3
ARTG 226	Motion Graphics	3
ARTG 290	UX Design II	3
ARTG 292	Letterforms and Typography	3
Total Semester Credit Hours		**27**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ARTE 103 or ARTE 101	Digital Art and Design-GTAH1 or Two-Dimensional Design-GTAH1	3
ARTG 112	Graphic Design I	3
ENGL 111	English Composition I-GTCO1	3
KINE 100	Health and Wellness	1
MATH 110	Mathematical Investigations-GTMA1	3
Essential Learning - History		3
	Semester Credit Hours	**16**
Spring Semester		
ARTE 102	Three-Dimensional Design-GTAH1	3
ARTG 120	UX Design I	3
ENGL 112	English Composition II-GTCO2	3
Essential Learning - Natural Science with lab		4
KINA Activity Course		1
	Semester Credit Hours	**14**
Second Year		
Fall Semester		
ARTG 221	Graphic Design II	3
ARTG 222	Illustration Principles	3
Essential Learning - Humanities		3
Essential Learning - Natural Science without lab		3
Essential Learning - Social and Behavioral Sciences		3
	Semester Credit Hours	**15**
Spring Semester		
ARTG 226	Motion Graphics	3
ARTG 290	UX Design II	3
ARTG 292	Letterforms and Typography	3
Essential Learning - Fine Arts		3
Essential Learning - Social and Behavioral Sciences		3
	Semester Credit Hours	**15**
	Total Semester Credit Hours	**60**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for her/his intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Graphic Design (Minor)

Minor: Graphic Design
Program Code: M201

This minor is no longer accepting new students.

The Graphic Design Minor will acquaint students with some of the core elements related to the study and profession of Graphic Design. Courses will consist of both academic lecture and practical studio-based media. This minor provides students an opportunity to integrate personal creativity with any specified major degree. A background in Graphic Design can promote a variety of professional opportunities including areas of applied design, public relations, business graphics, product design, marketing, museum work and/or advertising.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(24 semester hours, must pass all courses with a grade of "B" or better.)

- In an effort to meet industry standards, Macintosh computers are used exclusively in all computer-based ARTG courses. Majors are strongly advised to consider purchasing a Macintosh and related publication software for personal use.
- Graphic Design majors are required to complete a formal Portfolio Review before being admitted to 300 level Graphic Design courses.

Code	Title	Semester Credit Hours
Lower Division Required Courses		
ARTE 101	Two-Dimensional Design-GTAH1	3
ARTE 102	Three-Dimensional Design-GTAH1	3
ARTG 112	Graphic Design I	3

ARTG 221	Graphic Design II	3
ARTG 222	Illustration Principles	3
ARTG 292	Letterforms and Typography	3
Upper Division Required Courses		
ARTG 301	Digital Illustration	3
ARTG 321	Advanced Typography	3
Total Semester Credit Hours		**24**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the "Intent to Graduate" form.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Heating, Ventilation, and Air Condition (HVAC)

Overview

Program Description

The Heating, Ventilation, and Air Conditioning Program prepares the student with entry-level skills required by employers in this industry.

It is industry-focused, with the student having the opportunity to earn their EPA section 608 certification, NATE (North American Technical Excellence) certification, plus many specialized certifications from ESCO (Energy Service Company). ESCO exams are supported by the Refrigeration Service Engineers Society (RSES), Air Conditioning Contractors of America (ACCA), Gas Appliance Manufacturer's Association (GAMA), Plumbing, Heating and Cooling Contractors Association (PHCC), Heating, Air Conditioning & Refrigeration Distributors International (HARDI) and the Air Conditioning, Heating & Refrigeration Institute (AHRI).

The Heating focus of the program consists of education in job safety, soldering and brazing, basic electricity, forced air gas furnace service, hydronic service, airflow problems, duct sizing, and troubleshooting gas-fired equipment. Performance testing after repairs is emphasized. State-of-the-art Simutech computer simulation programs are used along with live equipment in the lab.

The Air Conditioning focus of the program consists of basic refrigeration, refrigerant recovery training, principles of A/C operation, heat pumps, further airflow problems, analysis, and troubleshooting of the total system. Performance testing after repairs is emphasized. State-of-the-art Simutech computer simulation programs are used along with live equipment in the lab.

The Plumbing Service I Technical Certificate complements the HVAC program and prepares the student with entry-level residential skills required by employers in the plumbing industry. This initial certificate concentrates on plumbing fundamentals and allows the student to begin working in the plumbing industry as an apprentice as well as scaffolding into the HVAC AAS Degree option. This option can be completed in one semester and is offered in the spring only.

Important information about this program:

- EPA certification is part of this program and students will be required to pay the examination fee.
- NATE and ESCO certifications are optional and will have additional examination costs.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in communication fluency, quantitative fluency, specialized knowledge/applied learning, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Demonstrate professional behavior and communication skills including listening, speaking, and writing specifically to the HVAC industry. (Communication Fluency)

2. Demonstrate safe work habits in the performance of tasks in the HVAC industry. (Specialized Knowledge, Applied Learning)
3. Demonstrate professional and ethical behavior, and workplace responsibility as a HVAC repair technician. (Personal and Social Responsibility)
4. Demonstrate basic troubleshooting skills and repair skills to fulfill the requirements of HVAC service and repair technicians. (Critical Thinking)
5. Utilize mathematical concepts to analyze and implement troubleshooting systems including systems containing hardware and software components of HVAC systems. (Quantitative Fluency)

Contact Information

CMU Tech
Office of Student Services, Kayenta Hall 102
2508 Blichmann Avenue
970.255.2670

Programs of Study

Associates

- Heating, Ventilation, and Air Conditioning Technician (AAS) (p. 494)

Certificates

- HVAC: HVAC Fundamentals (Technical Certificate) (p. 496)
- Plumbing Service I (Technical Certificate) (p. 497)

Heating, Ventilation, and Air Conditioning Technician (AAS)

Overview

Degree: Associate of Applied Science
Major: Heating, Ventilation, and Air Conditioning
Program Code: 1388

The Heating, Ventilation, and Air Conditioning Program prepares the student with entry-level skills required by employers in this industry.

It is industry focused, with the student having the opportunity to earn their EPA certification, plus HVAC Excellence Certifications (Industry Competency Exams), administered by the ESCO Institute. The ICE exams are supported by the EPA (Environmental Protection Agency), DOE (Department of Education), Department of the Interior, Bureau of Indian Affairs, ASHRAE (American Society of Heating Refrigerating and Air Conditioning Engineers), Western HVAC Performance Alliance, International Association of Building Sciences, United States Green Building Council, and the United States Senate's High Performance Building Council.

The Heating focus of the program consists of education in job safety, soldering and brazing, basic electricity, forced air gas furnace service, hydronic service, air flow problems, duct sizing, and troubleshooting gas fired equipment. Performance testing after repairs is emphasized. State-of-the-art computer simulation programs are used along with live equipment in the lab.

The Air Conditioning focus of the program consists of basic refrigeration, refrigerant recovery training, principles of A/C operation, heat pumps, further air flow problems, analysis and troubleshooting the total system. Performance testing after repairs is emphasized. State-of-the-art computer simulation programs are used along with live equipment in the lab.

Important information about this program:

EPA certification is part of this program and students will be required to pay the examination fee.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Demonstrate professional behavior and communication skills to include listening, speaking, and writing specific to the HVAC industry. (Communication Fluency)
2. Demonstrate safe work habits in performance of tasks in the HVAC industry. (Specialized Knowledge, Applied Learning)
3. Demonstrate professional and ethical behavior, and work place responsibility as a HVAC repair technician. \ (Personal and Social Responsibility, Information Literacy)
4. Demonstrate basic troubleshooting skills and repair skills to fulfill the requirements of HVAC service and repair technicians. (Critical Thinking)
5. Utilize mathematical concepts to analyze and implement troubleshooting systems to include systems containing hardware and software components of HVAC systems. (Quantitative Fluency)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.

- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this degree:

- 61 semester hours required for AAS in Heating Ventilation and Air Conditioning Technician.

Essential Learning Requirements

(15 semester hours)
See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English		
ENGL 111	English Composition I-GTCO1	3
Select one of the following courses:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communication	
SPCH 102	Speechmaking	
Mathematics		
MATH 107	Career Math (or higher)	3
Other Essential Learning Core Courses		
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts, or Humanities course		3
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts, or Humanities course		3
Total Semester Credit Hours		**15**

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirements		
KINE 100	Health and Wellness	1
Select one Activity course		1
Total Semester Credit Hours		**2**

Program Specific Requirements

(44 semester hours)

Code	Title	Semester Credit Hours
HVAC 102	Basic Refrigeration	4
HVAC 103	Basic Electricity	3
HVAC 106	Introduction to Service Technician Training	1
HVAC 110	Fundamentals of Gas Heating	4
HVAC 111	Piping Skills for HVAC	4
HVAC 113	Refrigerant Recovery Training	1
HVAC 117	OSHA Ten-Hour Voluntary Compliance	1
HVAC 122	Commercial Refrigeration	4
HVAC 146	Residential Duct Design	2
HVAC 202	Troubleshooting and Customer Service	3
HVAC 210	Fundamentals of Hydronic Heating	4
HVAC 222	Heating, Ventilation, Air Conditioning, and Refrigeration Systems Troubleshooting	5
HVAC 240	Servicing Forced Air Systems	4
HVAC 261	Air Conditioning Systems Service and Repair	4
Total Semester Credit Hours		**44**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
HVAC 102	Basic Refrigeration	4
HVAC 103	Basic Electricity	3
HVAC 106	Introduction to Service Technician Training	1
HVAC 110	Fundamentals of Gas Heating	4
HVAC 117	OSHA Ten-Hour Voluntary Compliance	1
MATH 107	Career Math	3
	Semester Credit Hours	**16**
Spring Semester		
HVAC 111	Piping Skills for HVAC	4
HVAC 113	Refrigerant Recovery Training	1
HVAC 240	Servicing Forced Air Systems	4
ENGL 111	English Composition I-GTCO1	3
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
HVAC 122	Commercial Refrigeration	4
HVAC 146	Residential Duct Design	2
HVAC 202	Troubleshooting and Customer Service	3
Select one of the following:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communication	
SPCH 102	Speechmaking	
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
	Semester Credit Hours	**15**
Spring Semester		
HVAC 210	Fundamentals of Hydronic Heating	4

HVAC 222	Heating, Ventilation, Air Conditioning, and Refrigeration Systems Troubleshooting	5
HVAC 261	Air Conditioning Systems Service and Repair	4
KINE 100	Health and Wellness	1
KINA 1xx Activity Course		1
	Semester Credit Hours	**15**
	Total Semester Credit Hours	**61**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

HVAC: HVAC Fundamentals (Technical Certificate)

Overview

Award: Technical Certificate
Program of Study: Heating, Ventilation, and Air Conditioning
Specialization: HVAC Fundamentals
Program Code: 1161

The Heating, Ventilation, and Air Conditioning Program prepares the student with entry-level residential skills required by employers in this industry. This initial certificate concentrates on HVAC fundamentals and allows the student to begin working in the HVAC industry as an apprentice as well as scaffolding into the HVAC AAS Degree option.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Demonstrate safe work habits in performance of tasks in the HVAC industry. (Specialized Knowledge)
2. Identify and explain basic HVAC Fundamentals used in troubleshooting repair scenarios. (Specialized Knowledge, Critical Thinking)
3. Demonstrate professional behavior and communication skills to include listening, speaking, and writing specific to the HVAC industry. (Communication Fluency)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.

- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Degree Requirements

(16 semester hours)

Code	Title	Semester Credit Hours
HVAC 102	Basic Refrigeration	4
HVAC 103	Basic Electricity	3
HVAC 106	Introduction to Service Technician Training	1
HVAC 110	Fundamentals of Gas Heating	4
HVAC 117	OSHA Ten-Hour Voluntary Compliance	1
MATH 107	Career Math	3
Total Semester Credit Hours		**16**

Suggested Course Plan

First Year

Fall Semester		Semester Credit Hours
HVAC 102	Basic Refrigeration	4
HVAC 103	Basic Electricity	3
HVAC 106	Introduction to Service Technician Training	1
HVAC 110	Fundamentals of Gas Heating	4
HVAC 117	OSHA Ten-Hour Voluntary Compliance	1
MATH 107	Career Math	3
	Semester Credit Hours	**16**
	Total Semester Credit Hours	**16**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Plumbing Service I (Technical Certificate)

Overview

Award: Technical Certificate
Program of Study: Heating, Ventilation, and Air Conditioning
Specialization: Plumbing Service I
Program Code: 1162

The Plumbing Service I certificate prepares the student with entry-level residential skills required by employers in this industry. This initial certificate concentrates on plumbing fundamentals and allows the student to begin working in the plumbing industry as an apprentice as well as scaffolding into the HVAC AAS Degree option.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Demonstrate safe work habits in performance of tasks in the HVAC and Plumbing industry. (Specialized Knowledge)
2. Identify and explain basic HVAC Fundamentals used in troubleshooting repair scenarios. (Specialized Knowledge, Critical Thinking)
3. Demonstrate professional behavior and communication skills to include listening, speaking, and writing specific to the HVAC and Plumbing industry. (Communication Fluency)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than “C” will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(16 semester hours)

Code	Title	Semester Credit Hours
PLMB 102	Plumbing Service and Repair	4
PLMB 104	International Plumbing Code	4
HVAC 103	Basic Electricity	3
HVAC 106	Introduction to Service Technician Training	1
HVAC 111	Piping Skills for HVAC	4
Total Semester Credit Hours		**16**

Suggested Course Plan

First Year		
Spring Semester		**Semester Credit Hours**
PLMB 102	Plumbing Service and Repair	4
PLMB 104	International Plumbing Code	4
HVAC 103	Basic Electricity	3
HVAC 106	Introduction to Service Technician Training	1
HVAC 111	Piping Skills for HVAC	4
	Semester Credit Hours	**16**
	Total Semester Credit Hours	**16**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student’s responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar’s Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar’s Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the “Intent to Graduate” form to the Registrar’s Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's “Intent to Graduate” does not automatically move to a later graduation date.

History

Program Description

The study of history provides students with vital skills in critical thinking, oral and written presentation of ideas, an understanding of cause and effect relationships, and historical context to assess contemporary issues. Graduates of the History program come prepared to enter the workforce in a variety of areas.

History majors work closely with their advisor to create a program that balances upper-division course offerings in U.S., European, and World History, where students learn to make thematic connections across time and varied cultures. Our graduates take numerous paths to law or graduate school, as well as careers in education, library sciences, archival management, journalism/mass media, politics, non-profit work, and government. Some recent graduates have gone on to attend law or graduate school at Colorado State University, the University of Denver, the University of Oregon, and Rutgers University. Internship opportunities allow our students to participate in experiential learning while continuing to take classes. Recent interns have worked at the Museum of the West, Tomlinson Library Special Collections, Palisade Historical Society, the Atomic Legacy Cabin, and in all of the middle and high schools of District 51. Many former students received offers of employment following successful experiences within their internships. History majors can also gain leadership experience serving in an advisory role in Phi Alpha Theta, the national history honors society.

There are numerous program options from which students can select, including history, history/secondary education, and minors in history and public history. The Center for Teacher Education offers a comprehensive program of study that leads to licensure in Colorado. Faculty offer one-on-one guidance for course selection, field placements, student teaching, and employment. Students accumulate over 200 hours of classroom experience before beginning student teaching. School districts throughout western Colorado provide opportunities to gain experience with children of all ages and backgrounds in a variety of school settings. The Public History minor incorporates classes that prepare students for the professional skills needed in museum management and curatorial work, including the study of material culture, digital history, leadership and professionalism, and proper preservation of archival collections.

Contact Information

Department of Social and Behavioral Sciences
Dr. Erika K. Jackson, Professor of History and Department Head
970.248.1696

Programs of Study Bachelors/Minors

- Education: Secondary Education, History (BA) (p. 502)
- History (BA) (p. 499)
- History (Minor) (p. 506)
- Public History (Minor) (p. 507)

History (BA)

Degree: Bachelor of Arts
Major: History
Program Code: 3716

The study of history prepares the student for understanding present society and culture through a study of the past. The history program familiarizes students with the great historical civilizations and issues that have shaped our present world. History teaches students how to critically analyze information and make a compelling argument; skills that everyone needs to be successful in all their endeavors. Internships are available through museums, historical societies and public agencies. CMU history graduates pursue careers in teaching and public history, as well as private employment, and have also been very successful in gaining entrance to graduate study and law school.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Formulate the relationships of cause and effect. (Specialized Knowledge/Applied Learning);
2. Assess the importance of historical context.(Specialized Knowledge/Applied Learning);
3. Critically analyze an argument based on secondary sources. (Critical Thinking);
4. Critically analyze primary sources. (Critical Thinking);
5. Formulate a clear and persuasive argument based on evidence. (Communication Fluency);
6. Construct a clear thesis with strong topic sentences. (Communication Fluency).
7. Evaluate how local, national, or global societies have responded to ethical, social, civic, and/or environmental changes in the historical past. (Personal and Social Responsibility)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).

- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this degree:

- A grade of "C" or better must be earned in all required courses, unless otherwise stated.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 110	Mathematical Investigations-GTMA1	3
History		
HIST 131	United States History I-GTHI1	3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [2]		
Select one Natural Sciences course with lab		4
Select one Natural Sciences course		3
Total Semester Credit Hours		**31**

[1] Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

[2] One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity Course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(6 semester hours)

Code	Title	Semester Credit Hours
Select two consecutive courses in the same foreign language		6
Total Semester Credit Hours		**6**

Program Specific Degree Requirements

(48 semester hours, must maintain a 2.0 cumulative GPA or higher in coursework in this area. A grade of "C" or better must be earned in all required courses, unless otherwise stated.)

Code	Title	Semester Credit Hours
History Core		
HIST 101	Western Civilization I-GTHI1	3
HIST 102	Western Civilization II-GTHI1	3
HIST 132	United States History II-GTHI1	3
HIST 202	Introduction to Historical Research	3
HIST 404	Senior Seminar in Historical Research	3
History Electives		
European History		
Select three of the following:		9
HIST 300	History of England to 1660	
HIST 301	History of Modern Britain	
HIST 302	History of Modern France	
HIST 303	History of Modern Germany	
HIST 330	History of 19th Century Europe	
HIST 331	The 20th Century	
HIST 332	History of Modern Warfare	

HIST 350	Renaissance and Reformation	
HIST 355	Ancient and Medieval Cities	
HIST 360	Medieval Europe	
HIST 394	Junior Seminar in Historiography	
HIST 400	The Soviet Union and Eastern Europe	
HIST 430	The Ancient Mediterranean World	
HIST 435	Classical Archaeology	
HIST 440	Early and Medieval Christianity	
HIST 445	The Holocaust	
HIST 450	European History and Film	
World History		
Select two of the following:		6
HIST 310	Latin American Civilization	
HIST 311	The World Wars	
HIST 319	History of the United States-Mexico Borderlands	
HIST 333	The International History of the Cold War	
HIST 334	History of the British Empire	
HIST 340	History of the Middle East	
HIST 403	East Asia and the Modern World	
HIST 406	History of the African Continent	
United States History		
Select three of the following:		9
HIST 305	The Old South	
HIST 314	African American History	
HIST 315	Indigenous American History	
HIST 316	American Slavery	
HIST 320	The American West	
HIST 342	The Early American Republic	
HIST 344	The Age of Industry in America	
HIST 345	History of Immigration, Race, and Ethnicity in America	
HIST 346	The United States in the 1950s and 1960s	
HIST 347	Global America: 1970-2000	
HIST 348	The History of Food in America	
HIST 370	Early United States Women's History	
HIST 371	20th Century United States Women's History	
HIST 415	Colonial America	
HIST 416	The American Revolution	
HIST 420	Civil War	
HIST 425	History of Sexuality	
HIST 375	American Sport History	
HIST 405	Introduction to Public History	
HIST 409	Material Culture Studies	
HIST 410	Environmental History of the United States	
History Specialization		
Select three additional Upper Division History courses selected from European, United States, or World History or ANTH 225		9
Total Semester Credit Hours		**48**

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours. 29 semester hours, 4-7 hours of upper division will be needed.

Code	Title	Semester Credit Hours
Select electives		29
Total Semester Credit Hours		**29**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
HIST 131	United States History I-GTHI1	3
Essential Learning - Natural Science		3
HIST 101	Western Civilization I-GTHI1	3
KINE 100	Health and Wellness	1
	Semester Credit Hours	**13**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
Essential Learning - Humanities		3
MATH 110	Mathematical Investigations-GTMA1	3
HIST 102	Western Civilization II-GTHI1	3
General Elective		3
KINA Activity		1
	Semester Credit Hours	**16**
Second Year		
Fall Semester		
HIST 202	Introduction to Historical Research	3
Essential Learning - Fine Arts		3
Foundation Course - Foreign Language		3
Essential Learning - Social and Behavioral Science		3
History Elective		3
General Elective		3
	Semester Credit Hours	**18**
Spring Semester		
Essential Learning - Natural Science with Lab		4
Foundation Course - Foreign Language		3
Essential Learning - Social and Behavioral Science		3
HIST 132	United States History II-GTHI1	3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
	Semester Credit Hours	**17**
Third Year		
Fall Semester		
History Elective (2 courses)		6
General Elective (2 courses)		6
	Semester Credit Hours	**12**
Spring Semester		
History Elective (3 courses)		9
General Elective		3
Upper Division General Elective		3
	Semester Credit Hours	**15**
Fourth Year		
Fall Semester		
HIST 404	Senior Seminar in Historical Research	3

History Elective (2 courses)	6
Upper Division General Elective	3
General Elective	2
Semester Credit Hours	**14**
Spring Semester	
History Elective (4 courses)	12
General Elective	3
Semester Credit Hours	**15**
Total Semester Credit Hours	**120**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Education: Secondary Education, History (BA)

Degree: Bachelor of Arts
Major: History
Concentration: Secondary Education
Program Code: 3704

The Center for Teacher Education offers a comprehensive program of study that leads to licensure in Colorado. Our professors are experienced, knowledgeable, accessible, and dedicated to the improvement of public education. At Colorado Mesa University, we pride ourselves on the personal touch. Faculty offer one-on-one guidance for course selection, field placements, student teaching, and employment. Our mission is to develop *Educators as Innovators;* we are always looking to improve the quality of learning in our programs and K-12 schools.

As a student, you will gradually accumulate over 200 hours of classroom experience before beginning student teaching. School districts throughout western Colorado provide opportunities to gain experience with children of all ages and backgrounds in a variety of school settings.

The secondary licensure program provides teacher education candidates with broad content knowledge in history and prepares them as teachers for grades 7 through 12. A minimum of 75 credit hours of Essential Learning and content area coursework must be completed with a minimum GPA of 2.80 before a candidate may apply for admission to the Center for Teacher Education secondary licensure program. Please see the Teacher Education Admission Packet for further information on admissions criteria. EDUC 115 and EDUC 215 must be taken before applying to the program.

Important information about this program:

- 2.80 cumulative GPA or higher in all CMU coursework.
- 2.80 cumulative GPA or higher in coursework toward the major content area.
- A grade of "C" or better must be earned in all required courses, unless otherwise stated.
- All EDUC prefix courses must be completed with a grade of "B" or better.
- Students must pass the PRAXIS II exam in the content area prior to beginning the internship. Also, all other coursework toward the degree must be successfully completed prior to the internship.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. History Outcome 1: Formulate the relationships of cause and effect. (Specialized Knowledge/Applied Learning)
2. History Outcome 2: Assess the importance of historical context. (Specialized Knowledge/Applied Learning)
3. History Outcome 3: Critically analyze an argument based on secondary sources. (Critical Thinking)
4. History Outcome 4: Critically analyze primary sources. (Critical Thinking)
5. History Outcome 5: Formulate a clear and persuasive argument based on evidence.(Communication Fluency)
6. History Outcome 6: Construct a clear thesis with strong topic sentences. (Communication Fluency)
7. Evaluate how local, national, or global societies have responded to ethical, social, civic, and/or environmental changes in the historical past. (Personal and Social Responsibility)
8. Teacher Education Outcome 1: Demonstrate mastery of major area's content knowledge and pedagogical strategies through fieldwork with

learners in professional settings. (Specialized Knowledge/Applied Learning)

9. Teacher Education Outcome 2: Design and establish a safe, inclusive, and respectful learning environment for a diverse population of students. (Specialized Knowledge/Applied Learning)
10. Teacher Education Outcome 3: Plan and deliver effective instruction to students, based on research-based pedagogical practices. (Communication Literacy/Information Literacy)
11. Teacher Education Outcome 4: Collect and analyze student assessment data and use results to inform planning and instruction. (Quantitative Fluency/Critical Thinking)
12. Teacher Education Outcome 5: Demonstrate professionalism through ethical conduct, reflection, and leadership. (Personal and Social Responsibility)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Specific to this program:

- 2.80 cumulative GPA or higher in all CMU coursework.

Essential Learning Requirements

(31 semester hours, must earn a grade of "C" or better in each course, unless otherwise stated.)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [2]		
MATH 110	Mathematical Investigations-GTMA1	3
History		
HIST 131	United States History I-GTHI1	3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
ECON 201	Principles of Macroeconomics-GTSS1	3
PSYC 233	Human Growth and Development-GTSS3 (Must receive grade of “B” or higher)	3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [3]		
Select one Natural Sciences course		3
Select one Natural Sciences course with lab		4
Total Semester Credit Hours		**31**

1. Must receive a grade of “B” or better and must be completed by the time the student has 60 semester hours.
2. Must receive a grade of “C” or better, must be completed by the time the student has 60 semester hours.
3. One course must include a lab.

Other Lower Division Requirements

Must earn a grade of "C" or better in each course, unless otherwise stated.

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3

ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

6 semester hours, must earn a grade of "C" or higher in each course.)

Code	Title	Semester Credit Hours
Two consecutive courses in the same foreign language		6
Total Semester Credit Hours		**6**

Program Specific Degree Requirements

(77 semester hours, must maintain a 2.8 cumulative GPA or higher for coursework in this area. A grade of "C" or better must be earned in all required courses, unless otherwise stated. A "B" or better must be earned in all EDUC courses.)

- Students must pass the PRAXIS II exam in the content area prior to beginning the internship. Also, all other coursework toward the degree must be successfully completed prior to the internship.

Code	Title	Semester Credit Hours
Social Science Core		
ANTH 202	Introduction to Anthropology-GTSS3	3
GEOG 103	World Regional Geography-GTSS2	3
POLS 101	American Government-GTSS1	3
or POLS 261	Comparative Politics-GTSS1	
History Core		
HIST 101	Western Civilization I-GTHI1	3
HIST 102	Western Civilization II-GTHI1	3
HIST 132	United States History II-GTHI1	3
HIST 202	Introduction to Historical Research	3
HIST 404	Senior Seminar in Historical Research	3
History Electives		
European History		
Select three of the following:		9
HIST 300	History of England to 1660	
HIST 301	History of Modern Britain	
HIST 302	History of Modern France	
HIST 303	History of Modern Germany	
HIST 330	History of 19th Century Europe	
HIST 331	The 20th Century	
HIST 332	History of Modern Warfare	
HIST 350	Renaissance and Reformation	
HIST 355	Ancient and Medieval Cities	
HIST 360	Medieval Europe	
HIST 400	The Soviet Union and Eastern Europe	
HIST 430	The Ancient Mediterranean World	
HIST 435	Classical Archaeology	
HIST 440	Early and Medieval Christianity	
HIST 445	The Holocaust	
HIST 450	European History and Film	
World History		
Select one of the following:		3
HIST 310	Latin American Civilization	
HIST 311	The World Wars	
HIST 319	History of the United States-Mexico Borderlands	
HIST 333	The International History of the Cold War	
HIST 334	History of the British Empire	
HIST 340	History of the Middle East	
HIST 403	East Asia and the Modern World	
United States History		
Select three of the following:		9
HIST 305	The Old South	
HIST 314	African American History	
HIST 315	Indigenous American History	
HIST 316	American Slavery	
HIST 320	The American West	
HIST 342	The Early American Republic	
HIST 344	The Age of Industry in America	
HIST 345	History of Immigration, Race, and Ethnicity in America	
HIST 346	The United States in the 1950s and 1960s	
HIST 347	Global America: 1970-2000	
HIST 348	The History of Food in America	
HIST 370	Early United States Women's History	
HIST 371	20th Century United States Women's History	
HIST 375	American Sport History	
HIST 394	Junior Seminar in Historiography	
HIST 405	Introduction to Public History	
HIST 409	Material Culture Studies	
HIST 410	Environmental History of the United States	
HIST 415	Colonial America	
HIST 416	The American Revolution	
HIST 420	Civil War	
HIST 425	History of Sexuality	
Free Elective - Select any Upper Division History Course		3
Secondary Education Requirements [1,2]		
EDUC 115	What It Means To Be An Educator (8 field experience hours)	1
EDUC 215	Teaching as a Profession (12 field experience hours)	1
EDUC 342	Pedagogy and Assessment: Secondary and K-12 (20 field experience hours)	3
EDUC 343	Teaching to Diversity (20 field experience hours)	3
EDUC 442	Integrating Literacy Across the Curriculum: Secondary and K-12 Art (60 field experience hours)	3
EDUC 475	Classroom Management for K-12 Educators	1
EDUC 480	Methods and Topics in Secondary Teaching	3
EDUC 480B	Methods of Teaching Secondary Social Studies [3]	2

EDUC 499G	Teaching Internship and Colloquia: Secondary (600 field experience hours)	12
Praxis II Exam Passed		
Total Semester Credit Hours		**77**

1 Must earn a "B" or better in all EDUC courses.
2 Program Requirements: ENGL 111, ENGL 112, PSYC 233, EDUC 115 and EDUC 215 (all with a grade of "B" or better) and formal acceptance to the Teacher Education Program.
3 This course is only offered in the fall semester. It may be taken with either the 300-level or 400-level EDUC courses but must be taken before the student teaching semester.

All EDUC prefix courses listed above must be completed with a grade of B or better to progress through the program sequence. Students must PASS the PRAXIS II exam in the content area prior to commencing the internship. Also, ALL other coursework toward the degree must be successfully completed prior to the internship.

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
HIST 131	United States History I-GTHI1	3
Essential Learning - Natural Science		3
HIST 101	Western Civilization I-GTHI1	3
KINE 100	Health and Wellness	1
	Semester Credit Hours	**13**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
Essential Learning - Humanities		3
MATH 110	Mathematical Investigations-GTMA1 (or higher)	3
HIST 102	Western Civilization II-GTHI1	3
HIST 132	United States History II-GTHI1	3
Essential Learning - Fine Arts		3
	Semester Credit Hours	**18**
Second Year		
Fall Semester		
Foundation Course - Foreign Language		3
HIST 202	Introduction to Historical Research	3
PSYC 233	Human Growth and Development-GTSS3	3
POLS 101 or POLS 261	American Government-GTSS1 or Comparative Politics-GTSS1	3
ECON 201	Principles of Macroeconomics-GTSS1	3
EDUC 115	What It Means To Be An Educator	1
	Semester Credit Hours	**16**
Spring Semester		
Foundation Course - Foreign Language		3
Essential Learning - Natural Science with Lab		4
History Elective (2 courses)		6
GEOG 103	World Regional Geography-GTSS2	3
	Semester Credit Hours	**16**
Third Year		
Fall Semester		
History Elective (3 courses)		9
ANTH 202	Introduction to Anthropology-GTSS3	3
KINA Activity		1
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
EDUC 215	Teaching as a Profession	1
	Semester Credit Hours	**18**
Spring Semester		
EDUC 342	Pedagogy and Assessment: Secondary and K-12	3
EDUC 343	Teaching to Diversity	3
History Elective (2 courses)		6
	Semester Credit Hours	**12**
Fourth Year		
Fall Semester		
EDUC 442	Integrating Literacy Across the Curriculum: Secondary and K-12 Art	3
EDUC 475	Classroom Management for K-12 Educators	1
EDUC 480	Methods and Topics in Secondary Teaching	3
EDUC 480B	Methods of Teaching Secondary Social Studies	2
HIST 404	Senior Seminar in Historical Research	3
History Elective		3
	Semester Credit Hours	**15**
Spring Semester		
EDUC 499G	Teaching Internship and Colloquia: Secondary	12
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**120**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

History (Minor)

Minor: History
Program Code: M720

The study of history prepares the student for understanding present society and culture through a study of the past. The history program familiarizes students with the great historical civilizations and issues that have shaped our present world. History teaches students how to critically analyze information and make a compelling argument; skills that everyone needs to be successful in all their endeavors. Internships are available through museums, historical societies, and public agencies.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(24 semester hours)

Code	Title	Semester Credit Hours
Required Courses		
HIST 101	Western Civilization I-GTHI1	3
HIST 102	Western Civilization II-GTHI1	3
HIST 131	United States History I-GTHI1	3
HIST 132	United States History II-GTHI1	3
European History		
Select one of the following:		3
HIST 300	History of England to 1660	
HIST 301	History of Modern Britain	
HIST 302	History of Modern France	
HIST 303	History of Modern Germany	
HIST 330	History of 19th Century Europe	
HIST 331	The 20th Century	
HIST 332	History of Modern Warfare	
HIST 350	Renaissance and Reformation	
HIST 355	Ancient and Medieval Cities	
HIST 360	Medieval Europe	
HIST 400	The Soviet Union and Eastern Europe	
HIST 430	The Ancient Mediterranean World	
HIST 435	Classical Archaeology	
HIST 440	Early and Medieval Christianity	
HIST 445	The Holocaust	
HIST 450	European History and Film	
United States History		
Select one of the following:		3
HIST 314	African American History	
HIST 315	Indigenous American History	
HIST 316	American Slavery	
HIST 320	The American West	
HIST 342	The Early American Republic	
HIST 344	The Age of Industry in America	
HIST 345	History of Immigration, Race, and Ethnicity in America	
HIST 346	The United States in the 1950s and 1960s	
HIST 347	Global America: 1970-2000	
HIST 348	The History of Food in America	
HIST 370	Early United States Women's History	
HIST 375	American Sport History	
HIST 371	20th Century United States Women's History	
HIST 394	Junior Seminar in Historiography	
HIST 405	Introduction to Public History	
HIST 409	Material Culture Studies	
HIST 410	Environmental History of the United States	
HIST 415	Colonial America	
HIST 416	The American Revolution	
HIST 420	Civil War	
HIST 425	History of Sexuality	
World History		
Select one of the following:		3
HIST 310	Latin American Civilization	

HIST 311	The World Wars	
HIST 319	History of the United States-Mexico Borderlands	
HIST 333	The International History of the Cold War	
HIST 334	History of the British Empire	
HIST 340	History of the Middle East	
HIST 403	East Asia and the Modern World	
HIST 406	History of the African Continent	
Upper-Level History Elective		
Select any 300- or 400-level History (HIST) course		3
Total Semester Credit Hours		**24**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the "Intent to Graduate" form.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Public History (Minor)

Minor: Public History
Program Code: M721

The public history minor prepares students to use historical skills outside the classroom in positions such as museums, archives, historical societies, and public agencies.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(22 semester hours)

Code	Title	Semester Credit Hours
Core Courses [1]		
HIST 405	Introduction to Public History	3
HIST 407	Digital History	3
HIST 409	Material Culture Studies	3
HIST 494	Museum Education and Interpretation Seminar	1
HIST 499	History Internship	3
Restricted Electives:		
Select six hours from the following:		6
ANTH 202	Introduction to Anthropology-GTSS3	
ARTE 118	History of Art, Prehistory to Renaissance-GTAH1	
ARTE 119	History of Art, Renaissance to Present-GTAH1	
ARTH 319	Art of the American West	
ARTH 331	History of the Moving Image	
Select three hours from the following:		3
ENGL 219	Introduction to Professional Writing-GTCO3	
ENGL 320	Report and Proposal Writing	
MASS 110	Mass Media: Impact and History-GTAH2	
MASS 144	Multimedia Storytelling	
MASS 213	Introduction to Media Writing and Reporting	
Total Semester Credit Hours		**22**

[1] These courses require a 100-level HIST course as a prerequisite. Check the catalog for specific prerequisites for each course.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the "Intent to Graduate" form.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Hospitality Management

Program Description

The Bachelor of Business Administration (BBA) concentration in Hospitality Management equips students with essential business and technical skills for success in the hospitality industry. Students gain knowledge of marketing, management, accounting, and entrepreneurship while focusing on hospitality-specific challenges.The versatile BBA degree prepares graduates for diverse career paths or advanced studies, such as an MBA, making it a valuable asset in today's competitive job market.

The Bachelor of Applied Science (BAS) in Hospitality Management combines the technical skills and business proficiency necessary for success. A unique program, the BAS degree allows students who have already earned an Associate of Applied Science (AAS) degree to build upon their technical specialties with essential learning courses and junior and senior level business courses. This allows associate degree holders to gain a four-year degree in approximately four additional full-time semesters, depending upon prior coursework. Upon completion of the program, students will be technically and academically prepared for leadership positions in their chosen industries. Prospective students not holding an Associate of Applied Science degree can begin their university career at CMU in a chosen field of study with a two-year degree and then progress to a four-year degree using the BAS. This degree will provide students with upward mobility in their area of employment as they move into supervision/management positions.

Upon completion of the Associate of Applied Science (AAS) in Hospitality Management, students will be prepared for an entry-level position in the broad and expanding hospitality industry, as well as be prepared to pursue the Bachelor of Applied Science in Hospitality Management. Business courses to be taken include courses in marketing, promotion, management, accounting, finance, small business management and entrepreneurship.

The minor in Hospitality Management is designed to prepare students to enter the world of hospitality management. Coursework in the areas of marketing, management, and community tourism will provide students the basic skills needed in order to contribute more efficiently and effectively in the industry. For the student interested in the industry, a minor coupled with a bachelor's degree can increase the employment opportunities available in a variety of hospitality-related areas.

Contact Information

Davis School of Business
Dominguez Hall 301
970.248.1778

Programs of Study

Associates

- Hospitality Management (AAS) (p. 511)

Bachelors/Minors

- Hospitality Management (BAS) (p. 509)
- Hospitality Management (BBA) (p. 220)
- Hospitality Management (Minor) (p. 513)

Hospitality Management (BAS)

Degree: Bachelor of Applied Science
Major: Hospitality Management
Program Code: 3163

The Bachelor of Applied Science in Hospitality Management combines the technical skills and business proficiency necessary for success in today's business world. A unique program, the B.A.S. allows students who have already earned an associate of applied science degree to build upon their technical specialties with Essential Learning courses and junior and senior level business courses. This allows associate of applied science degree holders to gain a 4-year degree in approximately four additional full-time semesters, depending upon prior coursework.

Business courses to be taken include courses in marketing, promotion, management, accounting, finance, small business management and entrepreneurship. Upon completion of the program, students will be technically and academically prepared for leadership positions in the hospitality industry. Potential employment opportunities with this 4-year degree include management in any of the following areas: resort and hotel management, food and beverage management, travel and tourism management, health care and education food service management, etc. With the ever expanding world hospitality market, this degree has endless opportunities.

Prospective students not holding an associate of applied science degree can begin their college career at CMU in a chosen field of study with a 2-year degree and then progress to a 4-year degree using the B.A.S. This degree will provide students with upward mobility in their area of employment as they move into supervision/management positions.

Important information about this program:

- **Formal admission to a BAS program requires completion of the appropriate AAS degree from an accredited institution.** Any exceptions to this must be approved in advance by the department BAS advisor and the academic department head. All students must meet with the BAS advisor to plan and schedule all classes.
- To be admitted to the BAS degree, certain prerequisites must be satisfied. Please see the Business department head for complete requirements and application form.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, students in this major complete a plan of study that fulfills our department mission and requires demonstrated comprehension of program specific learning outcomes. These are as follows:

Mission: As a student-focused teaching and research department, Colorado Mesa University's Business Department prepares students to be sound decision makers and serves businesses in the Rocky Mountain region, the nation, and the world. We strive to develop prepared students who demonstrate strong ethical principles, superior critical thinking, effective communication, and robust business acumen.

Student Learning Outcomes:

1. Apply business knowledge and skills in appropriate business contexts. (Critical Thinking)
2. Analyze business issues critically utilizing quantitative research methodologies. (Quantitative Fluency)
3. Analyze business issues critically utilizing qualitative research methodologies. (Quantitative Fluency)
4. Utilize relevant and critically evaluated information in the process of communicating clearly, appropriately, and accurately to the audience in writing. (Communication Fluency, Information Literacy, Specialized Knowledge/Applied Learning)
5. Utilize relevant and critically evaluated information in the process of communicating clearly, appropriately, and accurately to the audience orally. (Communication Fluency, Information Literacy, Specialized Knowledge/Applied Learning)
6. Differentiate various functions of teams within organizations. (Specialized Knowledge/Applied Learning)
7. Demonstrate behaviors consistent with effective teamwork. (Specialized Knowledge/Applied Learning)
8. Analyze an issue within an ethical framework. (Personal and Social Responsibility)
9. Recommend a solution based on an ethical framework. (Critical Thinking)
10. Engage in a local, regional, national, and/or international activity that positively impacts society. (Personal and Social Responsibility)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU Bachelor of Applied Science (BAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Completion of an appropriate Associate of Applied Science (AAS) degree from an accredited institution is required for the BAS; exceptions must be approved by the BAS advisor and department head.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 33 upper-division credits.
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.

- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements. The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this program:

- Formal admission to a BAS program requires completion of the appropriate AAS degree from an accredited institution. Any exceptions to this must be approved in advance by the department BAS advisor and the department head.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 113	College Algebra-GTMA1 [2]	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [3]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

[1] Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

[2] This is a 4 credit course. 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.

[3] 7 semester hours, one course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Program Specific Degree Requirements

(72 semester hours, must maintain a cumulative GPA of 2.0 or higher for courses in this area.)

Code	Title	Semester Credit Hours
Business Courses		
ACCT 201	Principles of Financial Accounting	3
CISB 241	Introduction to Business Analysis	3
or STAT 241	Introduction to Business Analysis	
CISB 341	Quantitative Decision Making	3
FINA 301	Managerial Finance	3
HMGT 370	Managing Quality Service	3
HMGT 417	Applied Hospitality Operations	3
HMGT 450	Strategic Hospitality Sales and Marketing	3
HMGT 470	Hospitality Management Strategies [1]	3
HRMA 371	Human Resource Management	3
MANG 201	Principles of Management	3
MANG 301	Organizational Behavior	3
MARK 231	Principles of Marketing	3
Bachelor of Applied Science Core		
36 semester hours taken as part of a state approved Associate of Applied Science degree [1]		36
Total Semester Credit Hours		**72**

[1] HMGT 470 requires prerequisites HMGT 101 that are not included above and must be taken by the student if they are not included in the AAS that is transferred into the BAS core.

General Electives

(11 semester hours)

All college level courses appearing on final transcript, not listed above to bring total semester hours to 120, including 33 hours of upper division credits. At least 9 more hours of upper division coursework will be

required and more hours may be needed to bring the total upper division hours to a total of 33 hours. Please see advisor for recommendations. MANG 499 Internship (3 - 6 credit hours) is recommended.

Code	Title	Semester Credit Hours
MATH 113	College Algebra-GTMA1	1
Select additional electives		10
Total Semester Credit Hours		**11**

Suggested Course Plan

Students must complete a minimum of 120 semester credit hours as required to complete the degree, including satisfactory completion of all required courses. The course sequence below only includes the last two years of the program. Completion requirements may vary depending on AAS coursework. Plan to complete requirements with varying hour options accordingly.

Third Year		
Fall Semester		**Semester Credit Hours**
ACCT 201	Principles of Financial Accounting	3
CISB 241	Introduction to Business Analysis	3
MANG 201	Principles of Management	3
MARK 231	Principles of Marketing	3
	Semester Credit Hours	**12**
Spring Semester		
CISB 341	Quantitative Decision Making	3
FINA 301	Managerial Finance	3
MANG 301	Organizational Behavior	3
General Elective		3
	Semester Credit Hours	**12**
Fourth Year		
Fall Semester		
HMGT 370	Managing Quality Service	3
HMGT 417	Applied Hospitality Operations	3
General Electives		4
	Semester Credit Hours	**10**
Spring Semester		
HRMA 371	Human Resource Management	3
HMGT 450	Strategic Hospitality Sales and Marketing	3
HMGT 470	Hospitality Management Strategies	3
General Elective - MANG 499 Recommended		3
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**46**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for her/his intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audits on a regular basis and should discuss questions or concerns with their advisors or academic department heads. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Hospitality Management (AAS)

Degree: Associate of Applied Science
Major: Hospitality Management
Program Code: 1163

The field of Hospitality Management combines the technical skills and business proficiency necessary for success in today's business world. Business courses to be taken include courses in marketing, business law, business technology, management, accounting, finance, economics, and hospitality specific courses. Upon completion of the program, students will be prepared for an entry-level position in the broad and expanding hospitality industry, as well as prepared to continue for advanced study in the Bachelor of Applied Science in Hospitality Management.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Locate, gather and organize information on an assigned hospitality management topic. (Specialized Knowledge)
2. Recognize mathematical concepts and methods in relation to hospitality management issues. (Quantitative Fluency)
3. Communicate clearly and appropriately basic hospitality management information. (Communication Fluency)

4. Describe beginning hospitality management concepts in appropriate business contexts. (Critical Thinking)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(16 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
Communication		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics		
MATH 113	College Algebra-GTMA1	4
Other Essential Learning Core Courses		
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
Total Semester Credit Hours		**16**

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one KINA Activity course		1
Total Semester Credit Hours		**2**

Program Specific Degree Requirements

(42 semester hours)

Code	Title	Semester Credit Hours
Required Core Courses		
ACCT 201	Principles of Financial Accounting	3
ACCT 202	Principles of Managerial Accounting	3
BUGB 211	Business Communications	3
BUGB 231	Survey of Business Law	3
CISB 101	Business Information Technology	3
or CISB 205	Advanced Business Software	
CISB 241	Introduction to Business Analysis	3
or STAT 241	Introduction to Business Analysis	
CUAR 255	Supervision in the Hospitality Industry	3
HMGT 101	Travel Industry I	3
MANG 201	Principles of Management	3
MARK 231	Principles of Marketing	3
Select 12 hours of restricted electives from BUGB, MANG, MARK, ENTR, VITE, and CUAR courses or other advisor-approved subjects.		12
Total Semester Credit Hours		**42**

Suggested Course Plan

First Year

Fall Semester		Semester Credit Hours
ENGL 111	English Composition I-GTCO1	3
MATH 113	College Algebra-GTMA1	4
KINE 100	Health and Wellness	1

KINA 1XX	Kinesiology Activity Course	1
CISB 101 or CISB 205	Business Information Technology or Advanced Business Software	3
HMGT 101	Travel Industry I	3
	Semester Credit Hours	**15**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
CISB 241 or STAT 241	Introduction to Business Analysis or Introduction to Business Analysis	3
CUAR 255	Supervision in the Hospitality Industry	3
MANG 201	Principles of Management	3
Essential Learning - Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
ACCT 201	Principles of Financial Accounting	3
BUGB 211	Business Communications	3
Restricted Elective		3
Restricted Elective		3
Essential Learning - Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
	Semester Credit Hours	**15**
Spring Semester		
ACCT 202	Principles of Managerial Accounting	3
MARK 231	Principles of Marketing	3
BUGB 231	Survey of Business Law	3
Restricted Elective		3
Restricted Elective		3
	Semester Credit Hours	**15**
	Total Semester Credit Hours	**60**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Hospitality Management (Minor)

Minor: Hospitality Management
Program Code: M141

The minor in Hospitality Management is designed to prepare students to enter the world of hospitality. Coursework in the areas of sales and marketing, hospitality management strategies and hotel operations will provide students the basic skills needed in order to contribute more efficiently and effectively in the area of hospitality. For the student interested in the area of hospitality, a minor coupled with a bachelor's degree can increase the employment opportunities available in a variety of hospitality-related areas.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.

- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(24 semester hours)

Code	Title	Semester Credit Hours
HMGT 101	Travel Industry I	3
HMGT 317	Hospitality Technology	3
HMGT 370	Managing Quality Service	3
HMGT 450	Strategic Hospitality Sales and Marketing	3
Select 12 semester hours from the following:		12
HMGT 371	Events Management	
HMGT 417	Applied Hospitality Operations	
HMGT 470	Hospitality Management Strategies	
HMGT 299	Internship	
HMGT 499	Internship	
Additional courses may qualify in the elective category with permission of advisor		
Total Semester Credit Hours		**24**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the "Intent to Graduate" form.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Humanities

Program Description

The Humanities refer to disciplines that focus on the human condition, including the social and cultural relationships we form with others. In contrast to math and the natural sciences, which privilege empirical and quantitative methods to study society and the natural world, the humanities tend to use analytical, qualitative, and narrative approaches to understand our social, cultural, and personal contexts.

After completing Essential Learning requirements, students will choose courses that help them explore how we understand and express ourselves, from Art, Dance, English, Graphic Arts, and Foreign Languages, to Literature, Mass Communication, Music, Philosophy, Speech, and Theater. The Associate of Arts (AA) degree can be a terminal degree or serve as a pathway to a baccalaureate degree in the humanities.

Contact Information

Department of Languages, Literature and Mass Communication
Escalante Hall 237
970.248.1687

Programs of Study

Associates

- Humanities, Liberal Arts (AA) (p. 514)

Humanities, Liberal Arts (AA)

Degree: Associate of Arts
Major: Liberal Arts
Emphasis: Humanities
Program Code: 2230

The Associate of Arts degree (AA) works in two ways: 1) it can function as a terminal degree; 2) it can function as a pathway into a baccalaureate degree in the humanities. The degree program meets the requirements of the Colorado Statewide Essential Learning Core. A student who is granted this degree can transfer to any institution in Colorado and graduate in a baccalaureate degree program by taking no more than 60 hours from that institution. The same applies for students who decide to move from the AA program into any Colorado Mesa BA program. A number of emphases are available within the AA degree. Students can build a course of study that focuses on their area of interest in the following disciplines: Creative Writing Fine and Performing Arts, Foreign Languages, Literature, Mass Communications, Philosophy and/or Speech.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU or CMU Tech Associate of Arts (AA) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours total.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade of "C" or higher must be earned in all Essential Learning courses in order to be accepted for transfer under the Colorado Core Transfer Consortium General Education curriculum or gtPathways, Colorado's guaranteed transfer program.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 15 semester credit hours for an AA degree. A maximum of 6 of the 15 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 110	Mathematical Investigations-GTMA1	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [2]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

[1] Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

[2] One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Total Semester Credit Hours		**2**

Program Specific Degree Requirements

(27 semester hours, must maintain a 2.00 cumulative GPA or higher in coursework in this area.)

Code	Title	Semester Credit Hours
Select 27 credit hours from one or more of the following areas: [1]		27
Art		
Dance		
English		
Graphic Art		
Foreign Languages		
Literature		
Mass Communication		
Music		
Philosophy		
Speech		
Theater		
Total Semester Credit Hours		**27**

[1] No double counting is allowed between Essential Learning and major requirements.

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
Essential Learning - History		3
Essential Learning - Humanities		3
Essential Learning - Natural Science with lab		4
Humanities Emphasis Requirement		3
KINE 100	Health and Wellness	1
	Semester Credit Hours	**17**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
Essential Learning - Fine Arts		3
Essential Learning - Mathematics		3
Humanities Emphasis Requirement		3
Humanities Emphasis Requirement		3
Wellness Requirement - KINA Activities Course		1
	Semester Credit Hours	**16**
Second Year		
Fall Semester		
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - Natural Science without lab		3
Humanities Emphasis Requirement		3
Humanities Emphasis Requirement		3
Humanities Emphasis Requirement		3
	Semester Credit Hours	**15**
Spring Semester		
Essential Learning - Social and Behavioral Sciences		3
Humanities Emphasis Requirement		3
Humanities Emphasis Requirement		3
Humanities Emphasis Requirement		3
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**60**

Students that intend to continue with Colorado Mesa University should take ESSL 290 and ESSL 200 during the final semester of their Associate of Arts work.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for her/his intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Information and Communication Technology

Program Description

The Information and Communication Technology (ICT) program provides a comprehensive education combining theory with practical skills, preparing students for exciting careers in technology and communications. The program covers a wide range of topics, including computer systems, software development, network management, cybersecurity, data analytics, and telecommunications. It prepares students for careers in IT, telecommunications, and related industries through a blend of theoretical and hands-on training.

Program Highlights for Entry-Level Employees:

- Computer Hardware and Software: Business-class hardware and software; convergent data/voice/media communication technologies.
- Computer Networks: Networking principles, including LANs, WANs, and Internet protocols.
- Windows Client Workstations: How to deploy, configure, manage, secure, and maintain client workstations.
- Security and Cybersecurity: Basic knowledge to detect, analyze, and address cybersecurity threats using common open-source tools.
- Telecommunications: Understanding transmission systems, switching, and network protocols.
- Cloud Computing: Introductory knowledge of cloud services, architecture, and applications.
- Computer Programming: Fundamentals of programming languages like Python, Linux command line, and Microsoft Windows PowerShell.
- Windows Server Hybrid Core Infrastructure: Configuring and managing Windows Server workloads in the Azure cloud, on-premises, and hybrid environments.

Program Strengths:

- Modern Labs: Equipped with up-to-date technology, equipment, and software.
- Industry-Aligned Coursework: Aligned with national and international certifications, including:
  - Cisco, N+, CET, Convergence Technology Professional (CTP), CyberOps Associate.
  - CompTIA, Microsoft's AZ-800, Cybersecurity Analyst (CySA+), Microsoft MD-102, CompTIA A+ Core 1 (220-1101), Cloud+.
- Hands-On Curriculum: Application-based learning experiences.

Students can further their education by seamlessly transitioning to a Bachelor of Applied Science in Computer Information Systems or other select university programs.

Contact Information

CMU Tech
Office of Student Services, Kayenta Hall 102
2508 Blichmann Avenue
970.255.2670

Programs of Study

Associates

- Information and Communication Technology (AAS) (p. 517)

Certificates

- Computer Repair, Information and Communication Technology (Technical Certificate) (p. 519)
- Healthcare Information Networking, Information and Communication Technology (Technical Certificate) (p. 521)
- Help Desk Technician, Information and Communication Technology (Technical Certificate) (p. 522)
- Network Technician, Information and Communication Technology (Technical Certificate) (p. 524)

Information and Communication Technology (AAS)

Degree: Associate of Applied Science
Major: Information and Communication Technology
Program Code: 1318

This program, Information and Communication Technology, prepares students for a variety of specializations within the rapidly evolving information and communications technology field. The core of the program is the Cisco Certified Network Associate (CCNA) series of classes. As computer network security has become a major focus in the industry, course content will reflect this emphasis. These classes are the best path to achieving Cisco and CompTia certifications.

It is designed to educate students in areas of business-class computer hardware and software, convergent data/voice/media communication hardware and software, computer network hardware and software, and the Internet of Things hardware and software. The program utilizes CISCO curriculum for most courses, including the core Cisco Certified Network Associate (CCNA) courses to prepare students for the certification exam.

Curriculum is accredited, approved and aligned with national and international certifications by major business and industry in the networking and ICT career fields.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Apply business communication skills, listening, verbal, written, and electronic, needed for entry level information technology employment. (Communication Fluency)
2. Apply mathematical concepts to meet information technology industry employment requirements. (Quantitative Fluency)
3. Research, evaluate, synthesize and apply information/data relevant to information technology careers. (Critical Thinking)
4. Demonstrate knowledge of terminology, symbols, business practices, and principles and application of information technology technical skills. (Specialized Knowledge/Applied Learning)

5. Demonstrate ethical, civic, and work place responsibility as part of information technology professional behavior. (Specialized Knowledge)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Specific to this program:

- 67-68 semester hours total for the AAS Information and Communication Technology.

Essential Learning Requirements

(15-16 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
Communication		
ENGL 111	English Composition I-GTCO1	3
Select one of the following courses:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communication	
SPCH 102	Speechmaking	
Mathematics		
MATH 108	Technical Mathematics (or higher)	3 - 4
Other Essential Learning Core Courses		
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
Total Semester Credit Hours		**15-16**

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity Course		1
Total Semester Credit Hours		**2**

Program Specific Degree Requirements

(50 semester hours, each course must be completed with a grade of “C” or higher.)

Code	Title	Semester Credit Hours
ABUS 160	Introduction to Customer Service	3
ABUS 257	Managing Office Technology I	3
CSCI 110	Beginning Programming	3
TECI 120	A+ Certification Preparation	3
TECI 131	Principles of Information Assurance (Security+ Prep)	3
TECI 132	Introduction to IT Hardware and System Software	3
TECI 180	Cisco Networking I	3
TECI 185	Cisco Networking II	3
TECI 201	Linux Configuration (OS)	3
TECI 211	Windows Configuration (OS)	3
TECI 230	Cisco Networking III	3
TECI 242	Cloud Computing	3
TECI 243	Hybrid Servers Integration	3
TECI 244	Windows Automation and Management Program	3
TECI 257	Network Defense and Counter Measures (CySA+ Preparation)	4

TECI 270	Cisco Cybersecurity Operations Fundamentals (CBROPS)	4
Total Semester Credit Hours		**50**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ABUS 160	Introduction to Customer Service	3
ABUS 257	Managing Office Technology I	3
MATH 108	Technical Mathematics (or higher)	3-4
TECI 120	A+ Certification Preparation	3
TECI 132	Introduction to IT Hardware and System Software	3
KINE 100	Health and Wellness	1
	Semester Credit Hours	**16-17**
Spring Semester		
CSCI 110	Beginning Programming	3
ENGL 111	English Composition I-GTCO1	3
TECI 180	Cisco Networking I	3
TECI 211	Windows Configuration (OS)	3
TECI 242	Cloud Computing	3
Select one KINA Activity course		1
	Semester Credit Hours	**16**
Second Year		
Fall Semester		
TECI 131	Principles of Information Assurance (Security+ Prep)	3
TECI 185	Cisco Networking II	3
TECI 201	Linux Configuration (OS)	3
TECI 243	Hybrid Servers Integration	3
Select one of the following:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communication	
SPCH 102	Speechmaking	
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts, or Humanities course		3
	Semester Credit Hours	**18**
Spring Semester		
TECI 230	Cisco Networking III	3
TECI 244	Windows Automation and Management Program	3
TECI 257	Network Defense and Counter Measures (CySA+ Preparation)	4
TECI 270	Cisco Cybersecurity Operations Fundamentals (CBROPS)	4
Essential Learning - Social and Behavioral Sciences, Natural Sciences, Fine Arts or Humanities course		3
	Semester Credit Hours	**17**
	Total Semester Credit Hours	**67-68**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Computer Repair, Information and Communication Technology (Technical Certificate)

Award: Technical Certificate
Program of Study: Information and Communication Technology
Specialization: Computer Repair
Program Code: 1144

Upon completion of the computer repair technician program, students will have the knowledge and skills to ensure the most secure and up-to-date IT infrastructure is in place for an organization or a client. Students will assemble and disassemble computers, manage the assessment, installation, maintenance, and repair of computers, utilizing networks as needed. A person in this role must be skilled in a variety of computer operating systems and utilize network functions. Computer repair technicians may work for an organization, specific clients, or a repair shop. The most common certifications for this skill level are the COMPTIA A+ and Network+ Certifications.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Apply business communication using listening, verbal and written, and electronic forms that are needed for information technology entry level employment. (Communication Fluency)
2. Apply Mathematical concepts to meet information technology employment requirements. (Quantitative Fluency)
3. Utilize terminology, symbols, business practices, and principles and application of associated technical information technology skills. (Specialized Knowledge and Applied Learning)
4. Demonstrate ethical, civic, and work place responsibility as part of information technology professional behavior. (Specialized Knowledge)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than “C” will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Specific to this degree:

- 16 semester hours required for Technical Certificate in Information and Communication Technology: Computer Repair.

Program Specific Certificate Requirements

(16 semester hours)

Code	Title	Semester Credit Hours
Required Courses		
MATH 108	Technical Mathematics	4
ABUS 160	Introduction to Customer Service	3
ABUS 257	Managing Office Technology I	3
TECI 120	A+ Certification Preparation	3
TECI 132	Introduction to IT Hardware and System Software	3
Total Semester Credit Hours		**16**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
MATH 108	Technical Mathematics	4
ABUS 160	Introduction to Customer Service	3
ABUS 257	Managing Office Technology I	3
TECI 120	A+ Certification Preparation	3
TECI 132	Introduction to IT Hardware and System Software	3
	Semester Credit Hours	**16**
	Total Semester Credit Hours	**16**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student’s responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar’s Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar’s Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the “Intent to Graduate” form to the Registrar’s Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's “Intent to Graduate” does not automatically move to a later graduation date.

Healthcare Information Networking, Information and Communication Technology (Technical Certificate)

Award: Technical Certificate
Program of Study: Information and Communication Technology
Specialization: Healthcare Information Networking
Program Code: 1116

This certificate prepares students for Healthcare ICT jobs by teaching them the special needs of the healthcare industry including the Health Insurance Portability and Accountability Act, Electronic Health Records, the Universal Protocol and how to design, implement, monitor, and troubleshoot networks in healthcare environments. This course complements the Cisco CCNA curriculum and is designed for students who would like to expand their networking abilities by developing specialized healthcare networking skills. Hands-on labs throughout the course help students gain practical experience, including procedural and troubleshooting labs, skills integration challenges, and model building.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Describe the concepts and provisions of Electronic Health Records and the Health Insurance Portability and Accountability Act. (Specialized Knowledge/Applied Learning)
2. Describe how Information and Communication Technology is used in the Healthcare Industry. (Communication Fluency)
3. Describe the unique requirements and solutions for protecting healthcare information and networks. (Specialized Knowledge/Applied Learning)
4. Explain how to support, maintain, and troubleshoot a medical group network. (Critical Thinking)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than “C” will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(30 semester hours, must earn a grade of “C” or better in each course.)

Code	Title	Semester Credit Hours
Required Courses		
ABUS 128	Workplace Behavior	3
ABUS 160	Introduction to Customer Service	3
TECI 111	Healthcare Data Management and Information Systems	3
TECI 120	A+ Certification Preparation	3

TECI 131	Principles of Information Assurance (Security+ Prep)	3
TECI 132	Introduction to IT Hardware and System Software	3
TECI 180	Cisco Networking I	3
TECI 185	Cisco Networking II	3
TECI 230	Cisco Networking III	3
TECI 242	Cloud Computing	3
Total Semester Credit Hours		**30**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
TECI 111	Healthcare Data Management and Information Systems	3
TECI 131	Principles of Information Assurance (Security+ Prep)	3
TECI 132	Introduction to IT Hardware and System Software	3
TECI 180	Cisco Networking I	3
	Semester Credit Hours	**12**
Spring Semester		
ABUS 128	Workplace Behavior	3
ABUS 160	Introduction to Customer Service	3
TECI 185	Cisco Networking II	3
TECI 120	A+ Certification Preparation	3
	Semester Credit Hours	**12**
Second Year		
Fall Semester		
TECI 230	Cisco Networking III	3
TECI 242	Cloud Computing	3
	Semester Credit Hours	**6**
	Total Semester Credit Hours	**30**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Help Desk Technician, Information and Communication Technology (Technical Certificate)

Award: Technical Certificate
Program of Study: Information and Communication Technology
Specialization: Help Desk Technician
Program Code: 1117

Upon completion of the program, the student will be able to demonstrate skills, knowledge, and training for employment in an Information and Communication Technology Help Desk support position. Students learn the fundamentals of computer hardware and software, mobile devices, security and networking concepts, the responsibilities of the help desk technician and how to provide customer support.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Apply business communication using listening, verbal and written, and electronic forms that are needed for information technology entry level employment. (Communication Fluency)
2. Apply Mathematical concepts to meet information technology employment requirements. (Quantitative Fluency)
3. Ability to install, configure and provide instruction on basics of using common office software tools. (Specialized knowledge, Critical Thinking)
4. Demonstrate the skills necessary for entry-level employment as a help desk technician by effectively using Windows to meet the needs of computer users.
5. Demonstrate the skills necessary for entry-level employment as a help desk technician by effectively implement scalable and elastic cloud architectures to handle varying workloads

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than “C” will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(27-28 semester hours, must earn a grade of “C” or better in each course.)

Code	Title	Semester Credit Hours
Required Courses		
MATH 108	Technical Mathematics (or higher)	3-4
ABUS 160	Introduction to Customer Service	3
ABUS 257	Managing Office Technology I	3
CSCI 110	Beginning Programming	3
TECI 120	A+ Certification Preparation	3
TECI 132	Introduction to IT Hardware and System Software	3
TECI 180	Cisco Networking I	3
TECI 211	Windows Configuration (OS)	3
TECI 242	Cloud Computing	3
Total Semester Credit Hours		**27-28**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
MATH 108	Technical Mathematics (or higher)	3-4
ABUS 160	Introduction to Customer Service	3
ABUS 257	Managing Office Technology I	3
TECI 120	A+ Certification Preparation	3
TECI 132	Introduction to IT Hardware and System Software	3
	Semester Credit Hours	**15-16**
Spring Semester		
CSCI 110	Beginning Programming	3
TECI 180	Cisco Networking I	3
TECI 211	Windows Configuration (OS)	3
TECI 242	Cloud Computing	3
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**27-28**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student’s responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar’s Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar’s Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the “Intent to Graduate” form to the Registrar’s Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Network Technician, Information and Communication Technology (Technical Certificate)

Award: Technical Certificate
Program of Study: Information and Communication Technology
Specialization: Network Technician
Program Code: 1118

This certificate is based on the Cisco CCNA Routing and Switching series of courses and prepares students for the Cisco Certified Network Associate exam. The CCNA certification will prepare students for any entry-level networking career. Additional classes cover computers, information security, convergent communications technologies, best practice customer relations and workplace behavior.

The coursework in this certificate is aligned with national and international certifications including Cisco, A+/N+, CET, and Convergent Technology Professional (CTP). Program content has been structured to give a basic education to all graduates entering this field. Emphasis has been placed on providing a common core of training for all students due to the convergence of the communication industries.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Identify best practice information security policies.(Specialized Knowledge)
2. Demonstrate proficiency and knowledge required for basic use of computer hardware, software, and the Internet. (Specialized Knowledge)
3. Ability to install, configure and provide instruction on the basics of using common office software tools. (Critical Thinking)
4. Ability to identify, manage and overcome barriers to information technology communication. (Communication Fluency)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(39-40 semester hours, must earn a grade of "C" or better in each course.)

Code	Title	Semester Credit Hours
Required Courses		
MATH 108	Technical Mathematics (or higher)	3-4
ABUS 160	Introduction to Customer Service	3
ABUS 257	Managing Office Technology I	3
CSCI 110	Beginning Programming	3
TECI 120	A+ Certification Preparation	3
TECI 131	Principles of Information Assurance (Security+ Prep)	3
TECI 132	Introduction to IT Hardware and System Software	3
TECI 180	Cisco Networking I	3
TECI 185	Cisco Networking II	3
TECI 201	Linux Configuration (OS)	3
TECI 211	Windows Configuration (OS)	3
TECI 242	Cloud Computing	3
TECI 243	Hybrid Servers Integration	3
Total Semester Credit Hours		**39-40**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
MATH 108	Technical Mathematics (or higher)	3-4
ABUS 160	Introduction to Customer Service	3
ABUS 257	Managing Office Technology I	3
TECI 120	A+ Certification Preparation	3
TECI 132	Introduction to IT Hardware and System Software	3
	Semester Credit Hours	**15-16**
Spring Semester		
CSCI 110	Beginning Programming	3
TECI 180	Cisco Networking I	3
TECI 211	Windows Configuration (OS)	3
TECI 242	Cloud Computing	3
	Semester Credit Hours	**12**
Second Year		
Fall Semester		
TECI 131	Principles of Information Assurance (Security+ Prep)	3
TECI 185	Cisco Networking II	3
TECI 201	Linux Configuration (OS)	3
TECI 243	Hybrid Servers Integration	3
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**39-40**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Innovation

Program Description

The Professional Certificate in Innovation is a three-course sequence designed to spark new thinking for any CMU undergraduate student. All students can benefit from augmenting innovation into their chosen majors and minors to create products and processes that have not existed before. Students experience the process of innovation, examine the development of historical innovations, and take their own innovation from ideation through commercialization in the Maverick Innovation Center.

Programs of Study Certificates

- Innovation (Professional Certificate) (p. 526)

Innovation (Professional Certificate)

Award: Professional Certificate
Program of Study: Innovation
Program Code: 1701

The Professional Certificate in Innovation is a three-course sequence designed to spark new thinking for any CMU undergraduate student. All students can benefit from augmenting innovation into their chosen majors and minors to create products and processes that have not existed before. Students experience the process of innovation, examine the development of historical innovations, and take their own innovation from ideation through commercialization in the Maverick Innovation Center.

While not mandated, students are strongly encouraged to complete a minor that is not traditionally seen as being closely aligned with their chosen major in order to broaden their perspective and spark critical thinking. In the book, "The Opposable Mind", Roger Martin notes "innovative thinkers have the capacity to hold two diametrically opposed ideas in their heads. Without panicking or simply setting one alternative or the other, they're able to produce a synthesis that is superior to either opposing idea." Fundamentally this exemplifies the essence of a Liberal Arts education.

In lieu of choosing a minor significantly different from their major, students have the option of working with an innovation advisor in selecting a group of courses that would best augment their integrated pathway.

This certificate may be completed beginning in a student's sophomore year.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, critical thinking, and personal and social responsibility. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Demonstrate ability to identify a problem/opportunity then create a solution via the process of innovation.
2. Create a unique innovation connecting diverse academic disciplines from ideation through commercialization.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU Professional Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Primarily 300-400 level courses.
- At least fifty percent of the credit hours must be taken at CMU.
- 2.00 cumulative GPA or higher in all CMU coursework.
- A grade lower than “C” in the program of study will not be counted toward meeting the certificate’s requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Specific to this degree:

- This certificate may be completed beginning in a student's sophomore year.

Program Specific Requirements

(9 semester hours)

Code	Title	Semester Credit Hours
INOV 310	The Process of Innovation	3
INOV 320	Innovation Launch	3
INOV 450	Innovation Garage	3
Total Semester Credit Hours		**9**

Suggested Course Plan

Second Year		
Fall Semester		**Semester Credit Hours**
INOV 310	The Process of Innovation	3
INOV 320	Innovation Launch	3
	Semester Credit Hours	**6**
Spring Semester		
INOV 450	Innovation Garage	3
	Semester Credit Hours	**3**
	Total Semester Credit Hours	**9**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

International Studies

Program Description

The International Studies minor recognizes the complex interconnections between academic disciplines, peoples in varying cultural contexts and opportunities for social and economic advancement for our graduates. Students from a wide variety of disciplines can supplement their major in business, social sciences, natural sciences or humanities with an international focus through this minor. Students choose from a menu of options drawn from disciplines across the campus. The interdisciplinary nature of the International Studies minor is essential for preparing students to enter the new global marketplace of ideas and goods. Students taking the International Studies minor are encouraged to enhance their experience by participating in a variety of study abroad opportunities available while attending CMU.

Contact Information

Department of Social and Behavioral Sciences
Houston Hall
970.248.1696

Programs of Study

Bachelors/Minors

- International Studies (Minor) (p. 527)

International Studies (Minor)

Minor: International Studies
Program Code: M753

The International Studies Minor recognizes the complex interconnections between academic disciplines, peoples in cultural contexts, and opportunities for social and economic advancement for our graduates.

Students from a wide variety of disciplines can supplement their major in business, social sciences, natural sciences or humanities with an international focus through this minor. This will help them to understand the changing nature of their field while making their degree more marketable in a global workforce.

Students choose from a menu of options drawn from disciplines across the campus. The interdisciplinary nature of the international studies minor is essential for preparing our students to enter into the new global marketplace of ideas and goods. Students taking the International Studies Minor are encouraged to enhance their experience at Colorado Mesa by participating in a variety of study abroad opportunities available while attending CMU.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option

prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(24 semester hours, 8 must be upper-division)

- As part of their program, students will be encouraged to participate in an international experience in consultation with their advisors. This experience could be a semester or summer abroad, an international internship, an intensive immersion language program in another country, or participation in a growing number of study abroad opportunities offered by Colorado Mesa University. The credits received from this experience could be used to fulfill essential learning requirements or program requirements including unrestricted electives, but are not intended to add to the 120-hour graduation requirement. Substitutions would need to be approved by an advisor and department chair prior to the international experience.

Code	Title	Semester Credit Hours
International Studies Core		
FLA_ 211	Second Year (Language) I	3
POLS 270	World Politics [1]	3
or GEOG 103	World Regional Geography-GTSS2	
Business		
Select one of the following:		3
BUGB 401	International Business	
ECON 201	Principles of Macroeconomics-GTSS1	
ECON 342	Intermediate Macroeconomic Theory	
ECON 420	International Economics	
FINA 431	International Financial Management	
MARK 231	Principles of Marketing	
History		
Select one of the following:		3
HIST 102	Western Civilization II-GTHI1	
HIST 301	History of Modern Britain	
HIST 310	Latin American Civilization	
HIST 331	The 20th Century	
HIST 340	History of the Middle East	
HIST 403	East Asia and the Modern World	
Language and Literature		
Select one of the following:		3
ENGL 330	Women in World Thought and Literature	
ENGL 478	20th Century British Literature	
FLAS 311	History and Culture of Spain	
FLAV 390	Special Studies in Foreign Languages	
Natural Science and Mathematics		
Select one of the following:		3
BIOL 315	Epidemiology	
BIOL 407	Tropical Field Biology	
BIOL 415	Tropical Ecosystems	
CHEM 300	Environmental Chemistry	
GEOG 131	Introduction to Cartography	
GEOL 103	Weather and Climate-GTSC2	
GEOL 104	Oceanography-GTSC2	
GEOL 107	Natural Hazards and Environmental Geology-GTSC2	
GEOL 359	Survey of Energy-Related Natural Resources	
GIST 332 & 332L	Introduction to Geographic Information Systems and Introduction to Geographic Information Systems Laboratory	
Social and Behavioral Science		
Select one of the following:		3
GEOG 103	World Regional Geography-GTSS2 [1]	
POLS 261	Comparative Politics-GTSS1	
POLS 270	World Politics [1]	
POLS 366	Government and Politics of Asia	
POLS 372	Peace and Conflict Studies	
POLS 373	Global Politics of Women and Gender	
POLS 471	International Organizations and Law	
POLS 482	International Relations Theory	
SOCO 310	Sociology of Religion	
SOCO 314	Population	
Select one of the following:		3
Additional course from the Business, History, Languages and Literature, Natural Science and Mathematics, or Social and Behavior Sciences lists above		
Complete 3 credits through a pre-approved study abroad program		
Total Semester Credit Hours		**24**

[1] If POLS 270 or GEOG 103 are taken to fulfil the Core requirement for the minor, they cannot also be used to fulfil the Social and Behavioral Sciences requirement.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the "Intent to Graduate" form.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Kinesiology

Program Description

The Bachelors of Arts in Kinesiology includes two concentration options: Adapted Physical Education and K-12 Teaching.

Students concentrating in adapted physical education will learn to adapt or modify the physical education curriculum and/or instruction to address specific abilities of individuals. Students will learn to develop activities that are appropriate and effective for persons with disabilities. Career opportunities include adapted physical education teacher (K-12), which requires completing the K-12 concentration coursework; activity director at an assisted living center or rehabilitation facility; and occupational therapist.[1]

The K-12 teaching concentration prepares students to teach elementary, middle, and high school physical education. The degree plan includes coursework covering human anatomy and physiology, team and individual sports, exercise science, and teaching methods courses. Students will gradually accumulate over 200 hours of classroom experience before beginning student teaching. School districts throughout western Colorado provide opportunities to gain experience with children of all ages and backgrounds in a variety of school settings. Before being admitted into the teacher education program, the following courses must be completed with a grade of B or better:

Code	Title	Semester Credit Hours
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
PSYC 233	Human Growth and Development-GTSS3	3
EDUC 115	What It Means To Be An Educator	1
EDUC 215	Teaching as a Profession	1

A grade of C or better is required for MATH 110. Also, a minimum cumulative GPA of 2.8 (including transfer and CMU coursework) is required of all students for admission into the program.

Students enrolled in the personal training certificate should have a strong interest in fitness, health promotion, and personal training. Students will engage in practical experiences that will help them with the possibility of a future career in personal training. Students will explore subject areas that include: anatomy, physiology, kinesiology, applications of physical fitness, and exercise physiology.

[1] Career requires additional post-baccalaureate studies.

Contact Information

Department of Kinesiology
Maverick Center 237B
970.248.1635

Programs of Study

Bachelors/Minors

- Adapted Physical Education, Kinesiology (BA) (p. 530)
- Education: K-12 Education, Kinesiology (BA) (p. 532)

Certificates

- Personal Training (Professional Certificate) (p. 536)

Adapted Physical Education, Kinesiology (BA)

Degree: Bachelor of Arts
Major: Kinesiology
Concentration: Adapted Physical Education
Program Code: 3132

Students who select this major will learn to adapt or modify the physical education curriculum and/or instruction to address specific abilities of individuals. Students will learn to develop activities that are appropriate and effective for persons with disabilities. Career opportunities include: adapted physical education teacher (K-12) which requires completing the K-12 concentration coursework; activity director at an assisted living center or rehabilitation facility; physical therapist[1]; occupational therapist[1]. Colorado Mesa students frequently continue their study towards graduate or professional degrees at other universities.

[1] Career requires additional post-baccalaureate studies.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Describe physiological and biomechanical concepts related to movement and be able to communicate and formulate conclusions about the results. (Critical Thinking, Specialized Knowledge)
2. Apply motor development theory and principles related to skillful movement, physical activity, and fitness. (Communication Fluency, Information Literacy)
3. Identify the scope and definitions of health, fitness, and human performance with the ability to analyze the data critically. (Applied Learning, Quantitative Fluency)
4. Develop developmentally appropriate learning experiences, including personal and social responsibility, that address the diverse needs of all individuals. (Applied Learning. Personal and Social Responsibility)
5. Use a variety of assessments and feedback procedures to foster student learning. (Applied Learning, Quantitative Fluency, Specialized Knowledge)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 110	Mathematical Investigations-GTMA1	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3

Select one Social and Behavioral Sciences course [2]	3
Fine Arts	
Select one Fine Arts course	3
Natural Sciences [3]	
Select one Natural Sciences course with a lab	4
Select one Natural Sciences course	3
Total Semester Credit Hours	**31**

[1] Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.
[2] Suggested: PSYC 150, General Psychology (3).
[3] One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**7**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(7 semester hours)

Code	Title	Semester Credit Hours
BIOL 209	Human Anatomy and Physiology I	3
BIOL 209L	Human Anatomy and Physiology I Laboratory	1
KINE 265	Emergency Care	3
Total Semester Credit Hours		**7**

Program Specific Degree Requirements

(48 semester hours)

Code	Title	Semester Credit Hours
Required Core Courses		
KINE 200	Foundations of Kinesiology	3
KINE 213	Applications of Physical Fitness and Exercise Prescription	3
KINE 303	Physiology of Exercise	3
KINE 303L	Physiology of Exercise Laboratory	1
KINE 309	Anatomical Kinesiology	3
KINE 401	Organization, Management, and Legal Liabilities for Youth Fitness Programs	3
KINE 394	Kinesiology Junior Seminar	1
Required Concentration Courses		
PSYC 340	Abnormal Psychology	3
KINE 211	Methods of Lifetime, Individual, and Dual Activities	3
or KINE 251	Water Safety Instructor Course	
KINE 301	Health and Fitness Assessment	3
KINE 360	Motor Learning	3
KINE 415	Physical Activity and Aging	3
KINE 420	Therapeutic Interventions	3
KINE 480	Inclusive Physical Activity	3
KINE 499	Internship	4
Total Semester Credit Hours		**42**

Code	Title	Semester Credit Hours
Restricted Electives		
Select two of the following:		6
FLSL 111	American Sign Language I	
FLSL 112	American Sign Language II	
KINE 333	Community Health	
PSYC 233	Human Growth and Development-GTSS3	
PSYC 310	Child Psychology	
PSYC 330	Psychology of Adolescents and Emerging Adulthood	
PSYC 350	Psychology of Adulthood	
Total Semester Credit Hours		**6**

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total hours to 120 hours. 27 hours, up to 7 hours of upper division electives may be required.

Code	Title	Semester Credit Hours
Select electives		27
Total Semester Credit Hours		**27**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
KINE 100	Health and Wellness	1
KINE 200	Foundations of Kinesiology	3
Essential Learning - Fine Arts		3
Essential Learning - Natural Science		3
Essential Learning - Humanities		3
	Semester Credit Hours	**16**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
BIOL 209	Human Anatomy and Physiology I	3

BIOL 209L	Human Anatomy and Physiology I Laboratory	1
KINE 213	Applications of Physical Fitness and Exercise Prescription	3
MATH 110	Mathematical Investigations-GTMA1	3
Essential Learning - Social and Behavioral Science		3
	Semester Credit Hours	**16**
Second Year		
Fall Semester		
KINA Activity		1
KINE 211 or KINE 251	Methods of Lifetime, Individual, and Dual Activities or Water Safety Instructor Course	3
Essential Learning - Natural Science with Lab		4
Essential Learning - Social and Behavioral Science [1]		3
General Electives		6
	Semester Credit Hours	**17**
Spring Semester		
Essential Learning - History		3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
KINA Activity		1
KINE 265	Emergency Care	3
General Elective		3
	Semester Credit Hours	**14**
Third Year		
Fall Semester		
KINE 301	Health and Fitness Assessment	3
KINE 303	Physiology of Exercise	3
KINE 303L	Physiology of Exercise Laboratory	1
KINE 309	Anatomical Kinesiology	3
KINE 360	Motor Learning	3
General Electives		3
	Semester Credit Hours	**16**
Spring Semester		
KINE 415	Physical Activity and Aging	3
KINE 480	Inclusive Physical Activity	3
KINE 394	Kinesiology Junior Seminar	1
KINE 420	Therapeutic Interventions	3
General Electives		6
	Semester Credit Hours	**16**
Fourth Year		
Fall Semester		
PSYC 340	Abnormal Psychology	3
KINE 401	Organization, Management, and Legal Liabilities for Youth Fitness Programs	3
Restricted Elective - FLSL, PSYC, or KINE option		3
General Elective		3
	Semester Credit Hours	**12**
Spring Semester		
KINE 499	Internship	4
Restricted Elective - FLSL, PSYC, or KINE option		3
General Electives		6
	Semester Credit Hours	**13**
	Total Semester Credit Hours	**120**

[1] PSYC 150 - General Psychology recommended.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Education: K-12 Education, Kinesiology (BA)

Degree: Bachelor of Arts
Major: Kinesiology
Concentration: K-12 Teaching
Program Code: 3137

Students will be prepared to teach elementary, middle, and high school physical education. The degree plan includes coursework covering human anatomy and physiology, team and individual sports, exercise science, and teaching methods courses. Students will gradually accumulate over 200 hours of classroom experience before beginning student teaching. School districts throughout western Colorado provide opportunities to gain experience with children of all ages and backgrounds in a variety of school settings.

Before being admitted into the Teacher Education program, the following courses must be completed with a grade of B or better:

Code	Title	Semester Credit Hours
ENGL 111	English Composition I-GTCO1 [1]	3
ENGL 112	English Composition II-GTCO2 [1]	3
PSYC 233	Human Growth and Development-GTSS3	3

EDUC 115	What It Means To Be An Educator	1
EDUC 215	Teaching as a Profession	1

[1] English honors may be substituted for ENGL 111 and ENGL 112.

A grade of C or better is required for MATH 110. Also, a minimum cumulative GPA of 2.8 (including transfer and CMU coursework) is required of all students for admission into the program.

Important information about this program:

- Students must maintain a 2.80 cumulative GPA or higher in all CMU coursework.
- All other coursework toward the degree must be successfully completed prior to the internship.
- Kinesiology licensure students must pass the Praxis II content exam prior to student teaching (fee required).
- Students must have ENGL 111 ENGL 112(or ENGL 219), PSYC 233, EDUC 115, EDUC 215 (All with grade of "B" or higher) and MATH 110 or higher (with grade of "C" or higher) and formal acceptance to the Teacher Education Program.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Kinesiology Outcome 1: Apply scientific concepts that relate to the development of physically educated individuals. (Critical Thinking)
2. Kinesiology Outcome 2: Consistently display competent motor skills and fitness levels. (Applied Learning)
3. Kinesiology Outcome 3: Plan and teach developmentally appropriate standard based lesson plans. (Specialized Knowledge)
4. Kinesiology Outcome 4: Demonstrate teaching skills and strategies that improve learning for all student abilities. (Communication Fluency, Information Literacy)
5. Kinesiology Outcome 5: Use a variety of assessments and feedback procedures to foster student learning. (Applied Learning, Quantitative Fluency)
6. Kinesiology Outcome 6: Engage in behaviors that reflect professional ethics, professional growth, and advocacy of physical education. (Applied Learning, Personal and Social Responsibility)
7. Teacher Education Outcome 1: Demonstrate mastery of major area's content knowledge and pedagogical strategies through fieldwork with learners in professional settings. (Specialized Knowledge/Applied Learning)
8. Teacher Education Outcome 2: Design and establish a safe, inclusive, and respectful learning environment for a diverse population of students. (Specialized Knowledge/Applied Learning)
9. Teacher Education Outcome 3: Plan and deliver effective instruction to students, based on research-based pedagogical practices. (Communication Literacy/Information Literacy)
10. Teacher Education Outcome 4: Collect and analyze student assessment data and use results to inform planning and instruction. (Quantitative Fluency)
11. Teacher Education Outcome 5: Demonstrate professionalism through ethical conduct, reflection, and leadership. (Personal and Social Responsibility)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [2]		
MATH 110	Mathematical Investigations-GTMA1	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
PSYC 233	Human Growth and Development-GTSS3 [3]	3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [4]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

1. Must receive a grade of “B” or better and must be completed by the time the student has 60 semester hours.
2. Must receive a grade of “C” or better, must be completed by the time the student has 60 semester hours.
3. Must receive a grade of “B” or better.
4. One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity Course [1]		1
Select one Activity Course [1]		1
Essential Learning Capstone [2]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**7**

1. KINA 101/ KINA 102 are recommended for students with limited swimming skills.
2. Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(7 semester hours)

Code	Title	Semester Credit Hours
BIOL 209	Human Anatomy and Physiology I	3
BIOL 209L	Human Anatomy and Physiology I Laboratory	1
KINE 265	Emergency Care	3
Total Semester Credit Hours		**7**

Program Specific Degree Requirements

(70 semester hours, must maintain a 2.80 cumulative GPA or higher in coursework in this area and earn a grade of "B" or better in all EDUC courses.)

Code	Title	Semester Credit Hours
Required Core Courses		
KINE 200	Foundations of Kinesiology	3
KINE 213	Applications of Physical Fitness and Exercise Prescription	3
KINE 303 & 303L	Physiology of Exercise and Physiology of Exercise Laboratory	4
KINE 309	Anatomical Kinesiology	3
KINE 394	Kinesiology Junior Seminar	1
KINE 401	Organization, Management, and Legal Liabilities for Youth Fitness Programs	3
Required Concentration Courses		
KINE 211	Methods of Lifetime, Individual, and Dual Activities	3
KINE 214	Methods of Team Activities	3
KINE 251	Water Safety Instructor Course	3
KINE 256	Methods of Creative Play, Dance, Gymnastics, and Literacy	3
KINE 260	School Health Education	3
KINE 301	Health and Fitness Assessment	3
KINE 320	Methods of Teaching Physical Education in Elementary Schools (10 field experience hours)	3
KINE 360	Motor Learning	3
KINE 480	Inclusive Physical Activity	3
KINE 408	Methods of Teaching Physical Education in Secondary Schools (10 field experience hours)	3
KINE 497	Pre-Internship in Physical Education (120 field experience hours) [2]	3
K-12 Licensure Requirements [1]		
EDUC 115	What It Means To Be An Educator (8 field experience hours)	1
EDUC 215	Teaching as a Profession (12 field experience hours)	1
EDUC 342	Pedagogy and Assessment: Secondary and K-12 (20 field experience hours)	3
EDUC 343	Teaching to Diversity (20 field experience hours)	3
EDUC 499D	Teaching Internship and Colloquia: Elementary for K-12 (300 field experience hours)	6
EDUC 499H	Teaching Internship and Colloquia: Secondary for K-12 (300 field experience hours)	6
Other Requirements		

CPR card must be current upon graduation	
Praxis II Exam Passed	
Total Semester Credit Hours	**70**

1 All EDUC prefix courses must be completed with a grade of “B” or better to progress through and complete the program sequence. Students must PASS the PRAXIS II exam in the content area prior to commencing the internship. Also, ALL other coursework toward the degree must be successfully completed prior to the internship.

2 KINE 497 must be completed with a grade of "B" or better prior to the internship.

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours. 5 semester hours.

Code	Title	Semester Credit Hours
Select electives (see recommendations below)		5
Total Semester Credit Hours		**5**

Code	Title	Semester Credit Hours
Suggested Electives		
KINE 203	Human Nutrition	3
KINE 307	Philosophy and Psychology of Coaching	3
KINE 370 & 370L	Biomechanics and Biomechanics Laboratory	4
KINE 335	Sport in Society	3
KINE 342	Sport Law and Recreation Risk Management	3
KINE 403	Advanced Strength and Conditioning	3
KINE 405	Sports Nutrition	3

KINA courses on outdoor activities

Suggested Course Plan

While the sequencing below culminates in a total of 118-125 semester credit hours, students must complete a minimum of 120 semester credit hours as required for completion of the degree, including satisfactory completion of all required courses. Plan to complete requirements with varying hour options accordingly.

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
KINE 100	Health and Wellness	1
KINE 200	Foundations of Kinesiology	3
Essential Learning - History		3
Essential Learning - Fine Arts		3
Essential Learning - Natural Science		3
	Semester Credit Hours	**16**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
KINE 213	Applications of Physical Fitness and Exercise Prescription	3
BIOL 209 & 209L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Laboratory	4
MATH 110	Mathematical Investigations-GTMA1	3
Essential Learning - Humanities		3
EDUC 115	What It Means To Be An Educator	1
	Semester Credit Hours	**17**
Second Year		
Fall Semester		
KINE 211	Methods of Lifetime, Individual, and Dual Activities	3
KINE 260	School Health Education	3
PSYC 233	Human Growth and Development-GTSS3	3
Essential Learning - Social and Behavioral Science		3
Essential Learning - Natural Science with Lab		4
	Semester Credit Hours	**16**
Spring Semester		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
EDUC 215	Teaching as a Profession	1
KINA Activity		1
KINE 214	Methods of Team Activities	3
KINE 256	Methods of Creative Play, Dance, Gymnastics, and Literacy	3
KINE 265	Emergency Care	3
General Elective (if needed)		0-1
	Semester Credit Hours	**15-16**
Third Year		
Fall Semester		
KINE 309	Anatomical Kinesiology	3
KINE 360	Motor Learning	3
KINE 394	Kinesiology Junior Seminar	1
KINE 401	Organization, Management, and Legal Liabilities for Youth Fitness Programs	3
KINE 480	Inclusive Physical Activity	3
General Elective		3
	Semester Credit Hours	**16**
Spring Semester		
KINA Activity		1
KINE 251	Water Safety Instructor Course	3
KINE 301	Health and Fitness Assessment	3
KINE 303 & 303L	Physiology of Exercise and Physiology of Exercise Laboratory	4
KINE 320	Methods of Teaching Physical Education in Elementary Schools	3
General Elective (if needed)		0-3
	Semester Credit Hours	**14-17**
Fourth Year		
Fall Semester		
EDUC 342	Pedagogy and Assessment: Secondary and K-12	3
EDUC 343	Teaching to Diversity	3
KINE 408	Methods of Teaching Physical Education in Secondary Schools	3
KINE 497	Pre-Internship in Physical Education	3
Elective (if needed)		0-3
	Semester Credit Hours	**12-15**
Spring Semester		
EDUC 499D	Teaching Internship and Colloquia: Elementary for K-12	6
EDUC 499H	Teaching Internship and Colloquia: Secondary for K-12	6
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**118-125**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Personal Training (Professional Certificate)

Award: Professional Certificate
Program of Study: Personal Training
Program Code: 1145

Students enrolled in the Personal Training certificate program should have a strong interest in fitness, health promotion, and personal training. Students will engage in practical experiences that will help them with the possibility of a future career in personal training. Students will explore subject areas that include: anatomy, physiology, kinesiology, nutrition, applications of physical fitness, and exercise physiology. This program is designed to provide the student with the knowledge required to pass national certification examinations to become a National Strength and Conditioning Association – Certified Personal Trainer (NSCA-CPT), National Strength and Conditioning Association – Certified Strength and Conditioning Specialist (NSCA-CSCS), American College of Sports Medicine Certified Personal Trainer (ACSM-CPT), and/or American College of Sports Medicine Certified Exercise Physiologist (ACSM c-EP).

Important information about this program:

- 33 semester hours for the Professional Certificate in Personal Training.
- 2.00 cumulative GPA or higher in the certificate is required.
- At least 33 percent of the credit hours required for the certificate must be in courses numbered 300 or above.
- CPR/First Aid Certification is a graduation requirement for this certificate.
- Students are required to provide documentation (proof of payment and scheduled date) that they are registered to take one of the following exams:
  - American College of Sports Medicine Certified Personal Trainer (ACSM-CPT)
  - American College of Sports Medicine Certified Exercise Physiologist (ACSM c-EP)[1]
  - National Strength and Conditioning Association Certified Personal Trainer (NSCA-CPT)
  - National Strength and Conditioning Association Certified Strength and Conditioning Specialist (NSCA-CSCS)[1]

[1] Both of these certificates require the student to be in their final semester of the baccalaureate degree.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, critical thinking, and personal and social responsibility. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Evaluate the functions of the individual body systems.
2. Identify risk factors associated with chronic disease.
3. Identify exercise cautions and other safety concerns.
4. Describe procedures for physiological assessments.
5. Demonstrate the ability to clearly communicate specialized knowledge.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU Professional Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Primarily 300-400 level courses.
- At least fifty percent of the credit hours must be taken at CMU.
- 2.00 cumulative GPA or higher in all CMU coursework.
- A grade lower than "C" in the program of study will not be counted toward meeting the certificate's requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(33 semester hours, must earn a grade of "C" or better in each course.)

Additional notes about requirements for completion of this degree:

- At least 33 percent of the credit hours required for the certificate must be in courses numbered 300 or above.
- CPR/First Aid Certification is a graduation requirement for this certificate.
- Students are required to provide documentation (proof of payment and scheduled date) that they are registered to take one of the following exams:
  - American College of Sports Medicine Certified Personal Trainer (ACSM-CPT)
  - American College of Sports Medicine Certified Exercise Physiologist (ACSM c-EP)[1]
  - National Strength and Conditioning Association Certified Personal Trainer (NSCA-CPT)
  - National Strength and Conditioning Association Certified Strength and Conditioning Specialist (NSCA-CSCS)[1]

[1] Both of these certificates require the student to be in their final semester of the baccalaureate degree.

Code	Title	Semester Credit Hours
BIOL 209	Human Anatomy and Physiology I	3
BIOL 209L	Human Anatomy and Physiology I Laboratory	1
KINE 100	Health and Wellness	1
KINA 128	Intermediate Weight Training	1
KINE 203	Human Nutrition	3
KINE 213	Applications of Physical Fitness and Exercise Prescription	3
KINE 297	Practicum	2
KINE 301	Health and Fitness Assessment	3
KINE 303	Physiology of Exercise	3
KINE 303L	Physiology of Exercise Laboratory	1
KINE 309	Anatomical Kinesiology	3
KINE 310	Methods of Exercise Instruction	3
KINE 403	Advanced Strength and Conditioning	3
or KINE 404	Clinical Exercise Physiology and Advanced Exercise Prescription	
KINE 405	Sports Nutrition	3
Total Semester Credit Hours		**33**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Land Surveying and Geomatics

Program Description

The Land Surveying program prepares students to use equipment that is an integral part of land development for areas of engineering, construction projects and planning. Students learn to measure elevations, use equipment to measure on or below the surface and use technology to process data. The students will gain the knowledge needed for state certification.

All surveyor-specific courses can be completed for the two-year degree.

An online certificate program allows students who are already working as survey interns to complete the necessary computation/calculation, error analysis, and math and ethics coursework to enable them to take and successfully pass the state's Professional Surveyor Exam (progressive work experience in land surveying and geomatics is an additional requirement for examination eligibility).

Land Surveying and Geomatics students will:

- Understand the fundamentals of land surveying and the importance of record research;
- Use the components of Global Positioning Systems (GPS) and Geographical Information Systems (GIS) and be able to gather and analyze data from these systems;
- Develop spreadsheets and utilize other relevant computer programs (CAD and industry specific software programs) to provide accurate surveying analytics;
- Apply higher level mathematical concepts that are necessary to complete complex survey tasks (analytical geometry, upper level algebra, calculus, statistics);
- Utilize the Common Law roots of Boundary Law, its importance in maintaining accurate records and be able to apply those principles in surveying;
- Work within the ethical, as well as the practical, role of surveying, including the applicable state and local laws.

Career Opportunities

- Surveyors
- Geodetic Surveyors
- Soil and Water Conservationists
- Landscape Architects
- Title Examiners, Abstractors, and Searchers
- Appraisers, Real Estate

Contact Information

CMU Tech
Office of Student Services, Kayenta Hall 102
2508 Blichmann Avenue
970.255.2670

Programs of Study

Associates

- Land Surveying and Geomatics (AAS) (p. 538)

Certificates

- Land Surveying and Geomatics (Technical Certificate) (p. 540)

Land Surveying and Geomatics (AAS)

Degree: Associate of Applied Science
Program of Study: Land Surveying and Geomatics
Program Code: 1334

The Land Surveying and Geomatics program prepares students to use surveying equipment that is an integral part of land development for areas of engineering, construction projects and planning. Students learn to use surveying equipment to measure elevations, and positions on or below the surface of the earth. They also learn to use technology to process the measured data. Students also learn the mathematical and technical calculation fundamentals associated with their measurements, and the fundamental boundary law principles as they apply to boundary surveys and boundary determinations.

The AAS in Land Surveying and Geomatics degree meets the Colorado education requirements to be eligible to take the Fundamentals of Surveying examination for Land Surveyor Intern in the state of Colorado under C.R.S. 12-25-212 (3) (a) (II) (A) "Have graduated from a board-approved two-year surveying curriculum", provided they have the requisite progressive land surveying experience listed under part (II)(B) "Have a cumulative record of two years or more of progressive land surveying experience".

The AAS in Land Surveying and Geomatics degree also meets the Colorado education requirements to be eligible to take the Professional Land Surveyor's examination for licensure as a Professional Land Surveyor in the state of Colorado under C.R.S. 12-25-214 (2)(a) and (b)(III)(A) "Have graduated from a board-approved two-year surveying curriculum or a four year engineering curriculum that included surveying course work as specified by the board by rule", provided they have the requisite progressive land surveying experience under (III)(B) "Have six years of progressive land surveying experience of which four years shall have been under the supervision of a professional land surveyor or an exempt federal employee as defined under 12-25-203 (1)(b); and (III)(C) "Have been enrolled as a land surveyor-intern in this state>"

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Demonstrate the theoretical knowledge used in the performance of land surveying and geomatics professions. (Specialized Knowledge)
2. Demonstrate the practical skills and use of surveying tools according to the Land Surveying and Geomatics curriculum. (Applied Learning)
3. Demonstrate the practical skills and use of other surveying, drafting, and GIS tools according to the Land Surveying and Geomatics curriculum. (Applied Learning)
4. Demonstrate and apply higher level mathematical concepts that are necessary to complete complex survey tasks. (Quantitative Fluency)
5. Describe and understand the Common Law roots of Boundary Law and their importance in maintaining and generating accurate land

transaction records and be able to apply those principles in land surveying. (Communication Fluency)

6. Analyze surveying problems and issues to determine the proper approach to the correct solution, including proper measuring and calculation techniques and the common law legal principles to apply to arrive at the proper results and interpretation of these surveying problems. (Critical Thinking, Information Literacy)
7. Describe the ethical, as well as the practical role of surveying, including the applicable federal, state and local laws. (Personal and Social Responsibility)
8. Demonstrate an ability to meet the expected norms of the workforce. (Personal and Social Responsibility)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Specific to this degree:

- 61 credit hours total required for the AAS in Land Surveying and Geomatics.

Essential Learning Requirements

(17 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
Communication		
ENGL 111	English Composition I-GTCO1	3
Select one of the following:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communication	
SPCH 102	Speechmaking	
Mathematics		
MATH 114	Trigonometry and Analytic Geometry [1]	3
or MATH 130	Trigonometry	
Other Essential Learning Core Courses		
PHYS 111	General Physics I-GTSC1	4
PHYS 111L	General Physics I Laboratory-GTSC1	1
Select one Social and Behavioral Sciences, Natural Sciences, Fine Arts or Humanities course		3
Total Semester Credit Hours		**17**

[1] A course higher than MATH 114 or MATH 130 may be taken instead, but the student should meet with an advisor to ensure the overall minimum number of math credits is met as required by the Architects, Engineers, and Surveyors Board (AES Board).

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
KINA 1XX	Activity Course	1
Total Semester Credit Hours		**2**

Program Specific Degree Requirements

(42 semester hours, must complete with a grade of “C” or higher.)

Code	Title	Semester Credit Hours
CADT 106	Computer Aided Design	3
CADT 130	CAD-Civil	3
GEOG 131	Introduction to Cartography	3

GIST 332 & 332L	Introduction to Geographic Information Systems and Introduction to Geographic Information Systems Laboratory	3
Complete one of the following:		3-5
MATH 121	Calculus for Business	
MATH 141	Analytical Geometry	
MATH 131	Applied Calculus-GTMA1	
MATH 135	Engineering Calculus I	
MATH 151	Calculus I-GTMA1	
STAT 200	Probability and Statistics-GTMA1	3
SURV 100	Introduction to Surveying/Field Work	3
SURV 102	Surveying Calculations I	4
SURV 200	Advanced Surveying Field Work	3
SURV 203	Legal Aspects of Surveying	3
SURV 204	Real Property Descriptions	2
SURV 205	Advanced Surveying Computations/Calculations	4
SURV 206	Property Law - Boundary Evidence	3
SURV 207	Surveying Ethics: An Overview of Ethical Expectations	2
Total Semester Credit Hours		**42-44**

Suggested Course Plan

First Year

Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
GEOG 131	Introduction to Cartography	3
MATH 130	Trigonometry	3
SURV 100	Introduction to Surveying/Field Work	3
SURV 102	Surveying Calculations I	4
	Semester Credit Hours	**16**
Spring Semester		
Complete one of the following:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communication	
SPCH 102	Speechmaking	
Complete one of the following:		3-5
MATH 141	Analytical Geometry	
MATH 121	Calculus for Business	
MATH 131	Applied Calculus-GTMA1	
MATH 135	Engineering Calculus I	
MATH 151	Calculus I-GTMA1	
CADT 106	Computer Aided Design	3
STAT 200	Probability and Statistics-GTMA1	3
SURV 203	Legal Aspects of Surveying	3
SURV 204	Real Property Descriptions	2
	Semester Credit Hours	**17-19**
Second Year		
Fall Semester		
CADT 130	CAD-Civil	3
PHYS 111 & 111L	General Physics I-GTSC1 and General Physics I Laboratory-GTSC1	5
SURV 206	Property Law - Boundary Evidence	3
SURV 207	Surveying Ethics: An Overview of Ethical Expectations	2
Select one KINA Activity course		1
	Semester Credit Hours	**14**
Spring Semester		
GIST 332 & 332L	Introduction to Geographic Information Systems and Introduction to Geographic Information Systems Laboratory	3
SURV 200	Advanced Surveying Field Work	3
SURV 205	Advanced Surveying Computations/Calculations	4
KINE 100	Health and Wellness	1
Essential Learning - Social and Behavioral Sciences, Natural Sciences, Fine Arts or Humanities course		3
	Semester Credit Hours	**14**
	Total Semester Credit Hours	**61-63**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Land Surveying and Geomatics (Technical Certificate)

Award: Technical Certificate
Program of Study: Land Surveying and Geomatics
Program Code: 1122

CMU Tech/CMU has established a post-baccalaureate certificate in an online format that allows individuals across Colorado – and in surrounding states – to complete 37 hours of surveying and math-specific course work and a combined internship/capstone project. Colorado state law has established certain educational requirements for licensure as a Professional Land Surveyor. The Colorado Architects, Professional Engineers, and Professional Land Surveyors Board (AES Board) has then established more detailed educational requirements to meet the state law. This certificate would allow students who have an engineering degree of four or more years that needs the supplemental education in surveying and math-specific course work as established by the AES Board to meet the education requirements for eligibility to take the Colorado required exams for the Professional Land Surveyor's License.

For those students with a non-surveying curriculum or non-engineering curriculum of four or more years, additional courses in technological and/or business disciplines, basic science disciplines, and additional math disciplines may be required above this certificate in order to meet the educational requirements for eligibility to take the Colorado required exams to attain a Professional Land Surveyor's License. For those with a bachelor's degree in a non-surveying or non-engineering field, contact the Program Director of the Land Surveying and Geomatics Program for an opinion on whether the Post Baccalaureate Certificate will meet the AES Board defined education requirements when combined with their bachelor's degree. For some, the Associates of Applied Science in Land Surveying and Geomatics may be the more appropriate route to meet that requirement.

As an Admissions requirement for this Post Baccalaureate Certificate Program, students must provide evidence of an earned bachelor's degree in any field from an accredited bachelor's granting program to the Program Director before acceptance into the program can occur.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Demonstrate the theoretical knowledge used in the performance of land surveying and geomatics professions. (Specialized Knowledge)
2. Demonstrate the practical skills and use of surveying tools according to the Land Surveying and Geomatics curriculum. (Applied Learning)
3. Demonstrate and apply higher level mathematical concepts that are necessary to complete complex survey tasks. (Quantitative Fluency)
4. Describe the Common Law roots of Boundary Law and their importance in maintaining and generating accurate land transaction records and be able to apply those principles in land surveying. (Communication Fluency)
5. Analyze surveying problems and issues to determine the proper approach to the correct solution, including proper measuring and calculation techniques and the common law legal principles to apply to arrive at the proper results and interpretation of these surveying problems. (Critical Thinking)
6. Describe the ethical, as well as the practical role of surveying, including the applicable federal, state and local laws. (Personal and Social Responsibility)
7. Demonstrate an ability to meet the expected norms of the workforce. (Personal and Social Responsibility)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Requirements:

As an Admissions requirement for this Post Baccalaureate Certificate Program, students must provide evidence of an earned bachelor's degree in any field from an accredited bachelor's granting program to the Program Director before acceptance into the program can occur.

For those with a bachelor's degree in a non-surveying or non-engineering field, contact the Program Director of the Land Surveying and Geomatics Program for an opinion on whether the Post Baccalaureate Certificate will meet the Colorado State Board of Architects, Professional Engineers, and Professional Land Surveyors education requirements when combined with their bachelor's degree. For some, the Associates of Applied Science

in Land Surveying and Geomatics may be the more appropriate route to meet that requirement instead of this certificate.

Program Specific Certificate Requirements

(37-39 semester hours, must earn a grade of "C" or better in each course.)

Code	Title	Semester Credit Hours
STAT 200	Probability and Statistics-GTMA1	3
MATH 114	Trigonometry and Analytic Geometry [1]	3
or MATH 130	Trigonometry	
Complete one of the following courses:		3-5
MATH 141	Analytical Geometry	
MATH 121	Calculus for Business	
MATH 131	Applied Calculus-GTMA1	
MATH 135	Engineering Calculus I	
MATH 151	Calculus I-GTMA1	
SURV 100	Introduction to Surveying/Field Work	3
SURV 102	Surveying Calculations I	4
SURV 200	Advanced Surveying Field Work	3
SURV 203	Legal Aspects of Surveying	3
SURV 204	Real Property Descriptions	2
SURV 205	Advanced Surveying Computations/Calculations	4
SURV 206	Property Law - Boundary Evidence	3
SURV 207	Surveying Ethics: An Overview of Ethical Expectations	2
SURV 298	Internship/Capstone Project	4
Total Semester Credit Hours		**37-39**

[1] A course higher than MATH 114 or MATH 130 may be taken instead with advisor approval, but the student should meet with an advisor to ensure the overall minimum number of math credits is met as required by the Architects, Engineers, and Surveyors Board (AES Board).

Suggested Course Plan

For Post Baccalaureate Certificate students working full time:

First Year		
Fall Semester		**Semester Credit Hours**
MATH 114 or MATH 130	Trigonometry and Analytic Geometry or Trigonometry	3
SURV 203	Legal Aspects of Surveying	3
SURV 204	Real Property Descriptions	2
	Semester Credit Hours	**8**
Spring Semester		
SURV 100	Introduction to Surveying/Field Work	3
SURV 102	Surveying Calculations I	4
	Semester Credit Hours	**7**
Summer Semester		
SURV 207	Surveying Ethics: An Overview of Ethical Expectations	2
	Semester Credit Hours	**2**
Second Year		
Fall Semester		
STAT 200	Probability and Statistics-GTMA1	3
SURV 200	Advanced Surveying Field Work	3
SURV 205	Advanced Surveying Computations/Calculations	4
	Semester Credit Hours	**10**
Spring Semester		
Complete one of the following courses:		3-5
MATH 141	Analytical Geometry	
MATH 121	Calculus for Business	
MATH 131	Applied Calculus-GTMA1	
MATH 135	Engineering Calculus I	
MATH 151	Calculus I-GTMA1	
SURV 206	Property Law - Boundary Evidence	3
	Semester Credit Hours	**6-8**
Summer Semester		
SURV 298	Internship/Capstone Project	4
	Semester Credit Hours	**4**
	Total Semester Credit Hours	**37-39**

For Post Baccalaureate Certificate students attempting to maximize courses and minimize time (full time students). Note: A Spring Semester start is suggested to better fit pre-requisites and co-requisites.

First Year		
Spring Semester		**Semester Credit Hours**
SURV 100	Introduction to Surveying/Field Work	3
SURV 102	Surveying Calculations I	4
SURV 206	Property Law - Boundary Evidence	3
MATH 130	Trigonometry	3
STAT 200	Probability and Statistics-GTMA1	3
	Semester Credit Hours	**16**
Summer Semester		
SURV 207	Surveying Ethics: An Overview of Ethical Expectations	2
	Semester Credit Hours	**2**
Fall Semester		
SURV 200	Advanced Surveying Field Work	3
SURV 203	Legal Aspects of Surveying	3
SURV 204	Real Property Descriptions	2
SURV 205	Advanced Surveying Computations/Calculations	4
Complete one of the following courses:		3-5
MATH 141	Analytical Geometry	
MATH 121	Calculus for Business	
MATH 135	Engineering Calculus I	
MATH 151	Calculus I-GTMA1	
MATH 131	Applied Calculus-GTMA1	
	Semester Credit Hours	**15-17**
Second Year		
Spring Semester		
SURV 298	Internship/Capstone Project	4
	Semester Credit Hours	**4**
	Total Semester Credit Hours	**37-39**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around.

Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Liberal Arts

(Interdisciplinary Majors)

Program Description

While Colorado Mesa University provides a wide range of specific program options, the university also provides students the chance to explore broadly and still earn a degree. A liberal arts degree is designed to offer students the opportunity to craft a plan of study to suit their individual career and academic aspirations. Under the direction of an advisor, a liberal arts degree-seeking student can design a coherent program by choosing appropriate courses that focus on several of the interests that the student has. The Liberal Arts degree can be pursued at the two-year or at the four-year levels, leading to an AA, an AS, or a BA. As listed under the Programs of Study tab, some of the options offer more focus while others are quite broad.

Elementary Education Tracks

As listed under the Programs of Study tab, The Center for Teacher Education offers a comprehensive program of study that leads to a teaching license in Colorado with a focus on the liberal arts. Candidates choose a concentration in English, mathematics, or social science. Our professors are experienced, knowledgeable, accessible, and dedicated to the improvement of public education. Faculty offer one-on-one guidance for course selection, field placements, student teaching, and employment. The elementary licensure program provides teacher education candidates with a broad content knowledge and prepares them as teachers for grades kindergarten through six. Please see the elementary education programs of study as well as the Center for Teacher Education's website for further information on admissions criteria.

Contact Information

Education Options

Center for Teacher Education
Dominguez Hall 109
970.248.1786

General Studies and Interdisciplinary Studies Option at the BA or BAS level

Office of Academic Affairs
LHH 201-208
970.248.1881

University Studies, Liberal Arts AA option

Office of Academic Affairs
LHH 201-208
970.248.1881

For information about the more specific two-year degree programs, please contact the individual departments listed.

Programs of Study

Associates

- Biology, Liberal Arts (AS) (p. 196)
- Business Administration, Liberal Arts (AA) (p. 238)
- Business Computer Information Systems, Liberal Arts (AA) (p. 269)
- Computer Science, Liberal Arts (AS) (p. 277)
- ECE, Liberal Arts (AA) (p. 351)

- Geology, Liberal Arts (AS) (p. 473)
- Humanities, Liberal Arts (AA) (p. 514)
- Mathematics, Liberal Arts (AS) (p. 601)
- Physics, Liberal Arts (AS) (p. 708)
- Social Science, Liberal Arts (AA) (p. 736)
- Sports Management, Liberal Arts (AS) (p. 769)
- University Studies, Liberal Arts (AA) (p. 559)

Bachelors/Minors

- Education: Elementary Education, English, Liberal Arts (BA) (p. 544)
- Education: Elementary Education, Mathematics, Liberal Arts (BA) (p. 547)
- Education: Elementary Education, Social Science, Liberal Arts (BA) (p. 551)
- General Studies, Liberal Arts (BA) (p. 555)
- Interdisciplinary Studies, Liberal Arts (BAS) (p. 557)

Education: Elementary Education, English, Liberal Arts (BA)

Degree: Bachelor of Arts
Major: Liberal Arts, Elementary Education
Concentration: English
Program Code: 3291

The Center for Teacher Education offers a comprehensive program of study that leads to licensure in Colorado. Our professors are experienced, knowledgeable, accessible, and dedicated to the improvement of public education. At Colorado Mesa University, we pride ourselves on the personal touch. Faculty offer one-on-one guidance for course selection, field placements, student teaching, and employment. Our mission is to develop *Educators as Innovators;* we are always looking to improve the quality of learning in our programs and K-12 schools.

As a student, you will gradually accumulate over 200 hours of classroom experience before beginning student teaching. School districts throughout western Colorado provide opportunities to gain experience with children of all ages and backgrounds in a variety of school settings.

The elementary licensure program provides teacher education candidates with a broad content knowledge and prepares them as teachers for grades kindergarten through six. A minimum of 60 credit hours of Essential Learning and content area coursework must be completed with a minimum GPA of 2.80 before a candidate may apply for admission to the Center for Teacher Education elementary licensure program. Please see the Teacher Education Admission Packet for further information on admissions criteria. EDUC 115 and EDUC 215 must be taken before applying to the program.

Important information for this program:

- Students must maintain 2.80 cumulative GPA or higher in all CMU coursework
- Must earn a grade of "C" or better in all required courses, unless otherwise noted.
- Foreign language proficiency must be demonstrated by high school course work (2 years), college coursework (2 semesters), or competency testing.
- Students must pass the PRAXIS II exam in the content area prior to beginning the internship. All other coursework toward the degree must be successfully completed prior to the internship.
- The program requires ENGL 111, ENGL 112, PSYC 233, EDUC 115 and EDUC 215, MATH 105, and MATH 205 (all with a grade of "B" or better) and formal acceptance to the Teacher Education Program.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Express themselves effectively in a variety of forms. (Communication Fluency)
2. Support interpretive claims about a variety of texts. (Critical Thinking)
3. Identify the salient features of literary texts from a broad range of English and American literary periods. (Specialized Knowledge)
4. Employ knowledge of literary traditions to produce imaginative writing. (Communication Fluency/Applied Learning)
5. Use research to assist in problem-solving. (Critical Thinking)
6. Demonstrate knowledge of the history or structure of the English language. (Specialized Knowledge)
7. Demonstrate mastery of major area's content knowledge and pedagogical strategies through fieldwork with learners in professional settings. (Specialized Knowledge/Applied Learning)
8. Design and establish a safe, inclusive, and respectful learning environment for a diverse population of students. (Specialized Knowledge/Applied Learning)
9. Plan and deliver effective instruction to students, based on research-based pedagogical practices. (Communication Literacy/Information Literacy)
10. Collect and analyze student assessment data and use results to inform planning and instruction. (Quantitative Fluency/Critical Thinking)
11. Demonstrate professionalism through ethical conduct, reflection, and leadership. (Personal and Social Responsibility)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this degree:

- 126 semester hours required for the BA in Liberal Arts, Elementary Education, English.

Essential Learning Requirements

(31 semester hours, must earn a grade of "C" or better in each course, unless otherwise noted.)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1,2]		
MATH 205	Elements of Mathematics II-GTMA1	3
History		
Select one History course [3]		3
Humanities		
Select one Humanities Course [4]		3
Social and Behavioral Sciences		
PSYC 233	Human Growth and Development-GTSS3	3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [5]		
Select one BIOL course		3
Select corresponding BIOL lab		1
Select one GEOL course		3
Total Semester Credit Hours		**31**

1. Must receive a grade of "B" or better and must be completed by the time the student has 60 semester hours.
2. Must be taken after MATH 105.
3. HIST 131 or HIST 132 recommended.
4. ENGL or HIST course recommended.
5. One course must include a lab.

Other Lower Division Requirements

Must earn a grade of "C" or better in each course, unless otherwise noted.

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

1. Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Program Specific Degree Requirements

(89 semester hours, must earn a grade of "C" or better in each course, unless otherwise noted. Must also maintain a 2.80 cumulative GPA or higher in coursework in this area. A grade of "B" or better is required for all EDUC courses.)

- Students must pass the PRAXIS II exam in the content area prior to beginning the internship. All other coursework toward the degree must be successfully completed prior to the internship.
- The program requires ENGL 111, ENGL 112, PSYC 233, EDUC 115 and EDUC 215, MATH 105, and MATH 205 (all with a grade of "B" or better) and formal acceptance to the Teacher Education Program.

Code	Title	Semester Credit Hours
Literacy and Mathematics		
ENGL 240	Children's Literature	3
ENGL 343	Language Systems and Linguistic Diversity	3
ENGL 451	Understanding and Using English Grammar	3
MATH 105	Elements of Mathematics I (Must earn a grade of "B" or higher)	3
MATH 301	Mathematics for Elementary Teachers	3
Kinesiology		

KINE 321	Physical Activity and Health in the Classroom	3
Social Sciences		
POLS 101	American Government-GTSS1	3
Select two of the following:		6
ANTH 202	Introduction to Anthropology-GTSS3	
ANTH 220	Principles of Archaeology-GTSS3	
or ANTH 225	North American Archaeology	
ECON 201	Principles of Macroeconomics-GTSS1	
HIST 101	Western Civilization I-GTHI1	
HIST 102	Western Civilization II-GTHI1	
HIST 131	United States History I-GTHI1	
HIST 132	United States History II-GTHI1	
HIST 225	History of Colorado-GTHI1	
HIST 315	Indigenous American History	
HIST 316	American Slavery	
HIST 320	The American West	
HIST 331	The 20th Century	
HIST 344	The Age of Industry in America	
HIST 345	History of Immigration, Race, and Ethnicity in America	
GEOG 102	Human Geography-GTSS2	
or GEOG 103	World Regional Geography-GTSS2	
Science		
Select two Natural Science courses from approved Essential Learning list or BIOL 209 or BIOL 210		6
Art		
ARTD 410	Elementary Art Education Methods	3
Elementary Education Concentration: English		
English Content Area Required Courses		
ENGL 210	Introduction to Literary Studies	3
ENGL 250	Introduction to Creative Writing	3
Upper Division Literature Electives		
Select two of the following:		6
ENGL 301	Classical Greek and Latin Literature	
ENGL 330	Women in World Thought and Literature	
ENGL 335	The Bible as Literature	
ENGL 355	Shakespeare	
ENGL 365	Literature for Young Adults	
ENGL 401	Studies in American Literature I	
ENGL 402	Studies in American Literature II	
ENGL 403	Studies in British and Commonwealth Literature I	
ENGL 404	Studies in British and Commonwealth Literature II	
ENGL 440	History of the English Language	
ENGL 444	Studies in Identity	
Upper Division English Elective		
Complete 3 semester hours of the following:		3
ENGL 380	Memoir and Creative Non-Fiction	
ENGL 381	Creative Writing: Fiction	
ENGL 382	Creative Writing: Crafting Fiction	
ENGL 383	Creative Writing: Poetry	
ENGL 384	The Art of the Essay	
ENGL 385	Technical and Professional Writing	
ENGL 386	Roots of Modern Rhetoric	
ENGL 388	Creative Writing: Crafting Poetry	
ENGL 390	Introduction to Film Studies	
ENGL 395	Independent Study	
ENGL 396	Topics	
ENGL 423	Genre Studies	
ENGL 492	Seminar in Writing	
ENGL 494	Seminar in Literature	
ENGL 495	Independent Study	
ENGL 496	Topics	
Total Semester Credit Hours		**51**

Code	Title	Semester Credit Hours
Elementary Education Requirements [1]		
EDUC 115	What It Means To Be An Educator	1
EDUC 215	Teaching as a Profession	1
EDUC 341	Pedagogy and Assessment: K-6/Elementary	3
EDUC 343	Teaching to Diversity	3
EDUC 374	Exceptional and English Language Learners in the Inclusive Classroom	3
EDUC 378	Technology for K-12 Educators	1
EDUC 440	Methods of Teaching Language and Literacy: EC	3
EDUC 441	Methods of Teaching Language and Literacy: Elementary	3
EDUC 451	Methods of Teaching Mathematics: Early Childhood/Elementary	3
EDUC 461	Methods of Teaching Science and Social Studies: Early Childhood/Elementary	3
EDUC 471	Educational Assessment for the K-12 Educator	1
EDUC 475	Classroom Management for K-12 Educators	1
EDUC 499C	Teaching Internship and Colloquia: Elementary	12
Praxis II Exam Passed		
Total Semester Credit Hours		**38**

[1] Must earn a grade of "B" or better in each courses. (840 field experience hours)

All EDUC prefix courses listed above must be completed with a grade of B or better to progress through the program sequence. Students must PASS the PRAXIS II exam in the content area prior to commencing the internship. Also, ALL other coursework toward the degree must be successfully completed prior to the internship.

Suggested Course Plan

First Year

Fall Semester		Semester Credit Hours
ENGL 111	English Composition I-GTCO1	3
POLS 101	American Government-GTSS1	3
KINA Activity		1
Essential Learning - Fine Arts		3
Essential Learning - Geology		3

Essential Learning - History		3
	Semester Credit Hours	**16**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
KINE 100	Health and Wellness	1
MATH 105	Elements of Mathematics I	3
EDUC 115	What It Means To Be An Educator	1
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - Humanities		3
Elementary Core - Natural Sciences		3
	Semester Credit Hours	**17**
Second Year		
Fall Semester		
PSYC 233	Human Growth and Development-GTSS3	3
MATH 205	Elements of Mathematics II-GTMA1	3
ENGL 250	Introduction to Creative Writing	3
Essential Learning - Biology		3
Essential Learning - Biology Lab		1
Elementary Core - Social Sciences		3
	Semester Credit Hours	**16**
Spring Semester		
ENGL 240	Children's Literature	3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
ENGL 210	Introduction to Literary Studies	3
EDUC 215	Teaching as a Profession	1
Elementary Core - Social Sciences		3
Elementary Core - Natural Science		3
	Semester Credit Hours	**17**
Third Year		
Fall Semester		
EDUC 341	Pedagogy and Assessment: K-6/Elementary	3
EDUC 343	Teaching to Diversity	3
ENGL 343	Language Systems and Linguistic Diversity	3
MATH 301	Mathematics for Elementary Teachers	3
Upper Division English Content Courses (2 courses)		6
	Semester Credit Hours	**18**
Spring Semester		
EDUC 374	Exceptional and English Language Learners in the Inclusive Classroom	3
EDUC 378	Technology for K-12 Educators	1
EDUC 440	Methods of Teaching Language and Literacy: EC	3
ENGL 451	Understanding and Using English Grammar	3
KINE 321	Physical Activity and Health in the Classroom	3
Upper Division English Content Course		3
	Semester Credit Hours	**16**
Fourth Year		
Fall Semester		
ARTD 410	Elementary Art Education Methods	3
EDUC 441	Methods of Teaching Language and Literacy: Elementary	3
EDUC 451	Methods of Teaching Mathematics: Early Childhood/ Elementary	3
EDUC 461	Methods of Teaching Science and Social Studies: Early Childhood/Elementary	3
EDUC 471	Educational Assessment for the K-12 Educator	1
EDUC 475	Classroom Management for K-12 Educators	1
	Semester Credit Hours	**14**
Spring Semester		
EDUC 499C	Teaching Internship and Colloquia: Elementary	12
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**126**

Advising and Graduation
Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Education: Elementary Education, Mathematics, Liberal Arts (BA)

Degree: Bachelor of Arts
Major: Liberal Arts, Elementary Education
Concentration: Mathematics
Program Code: 3491

The Center for Teacher Education offers a comprehensive program of study that leads to licensure in Colorado. Our professors are experienced, knowledgeable, accessible, and dedicated to the improvement of public education. At Colorado Mesa University, we pride ourselves on the personal touch. Faculty offer one-on-one guidance for course selection, field placements, student teaching, and employment. Our mission is to develop *Educators as Innovators;* we are always looking to improve the quality of learning in our programs and K-12 schools.

As a student, you will gradually accumulate over 200 hours of classroom experience before beginning student teaching. School districts

throughout western Colorado provide opportunities to gain experience with children of all ages and backgrounds in a variety of school settings.

The elementary licensure program provides teacher education candidates with a broad content knowledge and prepares them as teachers for grades kindergarten through six. A minimum of 60 credit hours of Essential Learning and content area coursework must be completed with a minimum GPA of 2.80 before a candidate may apply for admission to the Center for Teacher Education elementary licensure program. Please see the Teacher Education Admission Packet for further information on admissions criteria. EDUC 115 and EDUC 215 must be taken before applying to the program.

Important information for this program:

- Students must maintain 2.80 cumulative GPA or higher in all CMU coursework.
- Must earn a grade of "C" or better in all required courses, unless otherwise noted.
- Foreign language proficiency must be demonstrated by high school course work (2 years), college coursework (2 semesters), or competency testing.
- Students must pass the PRAXIS II exam in the content area prior to beginning the internship. All other coursework toward the degree must be successfully completed prior to the internship.
- The program requires ENGL 111, ENGL 112, PSYC 233, EDUC 115, EDUC 215, MATH 105, and MATH 205 (all with a grade of "B" or better) and formal acceptance to the Teacher Education Program.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Mathematics Outcome 1: Demonstrate familiarity with the logical and historical development of mathematics and the implications of this development. (Specialized Knowledge)
2. Mathematics Outcome 2: Demonstrate a deep and coherent proficiency in the mathematics underlying elementary curricula. (Quantitative Fluency)
3. Mathematics Outcome 3: Effectively communicate mathematics using oral and written exposition appropriate for teachers of mathematics. (Communication Fluency)
4. Mathematics Outcome 4: Reason mathematically and communicate precisely using clear definitions, appropriate symbols, correct units of measure with an appropriate degree of precision, proper labels, and coherent chains of logic. (Applied Learning)
5. Teacher Education Outcome 1: Demonstrate mastery of major area's content knowledge and pedagogical strategies through fieldwork with learners in professional settings. (Specialized Knowledge/Applied Learning)
6. Teacher Education Outcome 2: Design and establish a safe, inclusive, and respectful learning environment for a diverse population of students. (Specialized Knowledge/Applied Learning)
7. Teacher Education Outcome 3: Plan and deliver effective instruction to students, based on research-based pedagogical practices. (Communication Literacy/Information Literacy)
8. Teacher Education Outcome 4: Collect and analyze student assessment data and use results to inform planning and instruction. (Quantitative Fluency)
9. Teacher Education Outcome 5: Demonstrate professionalism through ethical conduct, reflection, and leadership. (Personal and Social Responsibility)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this degree:

- 126 semester hours required for the BA in Liberal Arts, Elementary Education, Mathematics.

Essential Learning Requirements

(31 semester hours, must earn a grade of "C" or better in each course, unless otherwise noted.)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1,2]		
MATH 205	Elements of Mathematics II-GTMA1	3
History		
Select one History course [3]		3
Humanities		
Select one Humanities Course [4]		3
Social and Behavioral Sciences		
PSYC 233	Human Growth and Development-GTSS3	3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [5]		
Select one BIOL course		3
Select corresponding BIOL lab		1
Select one GEOL course		3
Total Semester Credit Hours		**31**

[1] Must receive a grade of "B" or better and must be completed by the time the student has 60 semester hours.
[2] Must be taken after MATH 105.
[3] HIST 131 or HIST 132 recommended.
[4] ENGL or HIST course recommended.
[5] One course must include a lab.

Other Lower Division Requirements

Must earn a grade of "C" or better in each course, unless otherwise noted.

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Program Specific Degree Requirements

(89 Semester Hours, must earn a grade of "C" or better in each course, unless otherwise noted. Must also maintain a 2.80 cumulative GPA or higher in coursework in this area. A grade of "B" or better is required for all EDUC courses.)

- Students must pass the PRAXIS II exam in the content area prior to beginning the internship. All other coursework toward the degree must be successfully completed prior to the internship.
- The program requires ENGL 111, ENGL 112, PSYC 233, EDUC 115, EDUC 215, MATH 105, and MATH 205 (all with a grade of "B" or better) and formal acceptance to the Teacher Education Program.

Code	Title	Semester Credit Hours
Literacy and Mathematics		
ENGL 240	Children's Literature	3
ENGL 343	Language Systems and Linguistic Diversity	3
ENGL 451	Understanding and Using English Grammar	3
MATH 105	Elements of Mathematics I [1]	3
MATH 301	Mathematics for Elementary Teachers	3
Kinesiology		
KINE 321	Physical Activity and Health in the Classroom	3
Social Sciences		
POLS 101	American Government-GTSS1	3
Select two of the following:		6
ANTH 202	Introduction to Anthropology-GTSS3	
ANTH 220	Principles of Archaeology-GTSS3	
or ANTH 225	North American Archaeology	
ECON 201	Principles of Macroeconomics-GTSS1	
HIST 101	Western Civilization I-GTHI1	
HIST 102	Western Civilization II-GTHI1	
HIST 131	United States History I-GTHI1	
HIST 132	United States History II-GTHI1	
HIST 225	History of Colorado-GTHI1	
HIST 315	Indigenous American History	
HIST 316	American Slavery	
HIST 320	The American West	
HIST 331	The 20th Century	
HIST 344	The Age of Industry in America	
HIST 345	History of Immigration, Race, and Ethnicity in America	
GEOG 102	Human Geography-GTSS2	
or GEOG 103	World Regional Geography-GTSS2	
Science		
Select two Natural Science courses from approved Essential Learning list or BIOL 209 or BIOL 210		6
Art		
ARTD 410	Elementary Art Education Methods	3

Elementary Education Concentration: Mathematics		
Math Content Area Required Courses		
STAT 200	Probability and Statistics-GTMA1	3
MATH 215	Technology for Mathematics Educators	3
or CSCI 110	Beginning Programming	
MATH 131	Applied Calculus-GTMA1 [2]	4
MATH 389	Explorations in Mathematics for Elementary Educators	2
Concentration Elective		
Select one of the following:		3
MATH 225	Computational Linear Algebra	
MATH 305	Discovering Geometry	
MATH 340	Ethnomathematics	
MATH 369	Discrete Structures I	
STAT 301	Computational Statistics	
Total Semester Credit Hours		**51**

Code	Title	Semester Credit Hours
Elementary Education Requirements [3,4,5]		
EDUC 115	What It Means To Be An Educator	1
EDUC 215	Teaching as a Profession	1
EDUC 341	Pedagogy and Assessment: K-6/Elementary	3
EDUC 343	Teaching to Diversity	3
EDUC 374	Exceptional and English Language Learners in the Inclusive Classroom	3
EDUC 378	Technology for K-12 Educators	1
EDUC 440	Methods of Teaching Language and Literacy: EC	3
EDUC 441	Methods of Teaching Language and Literacy: Elementary	3
EDUC 451	Methods of Teaching Mathematics: Early Childhood/Elementary	3
EDUC 461	Methods of Teaching Science and Social Studies: Early Childhood/Elementary	3
EDUC 471	Educational Assessment for the K-12 Educator	1
EDUC 475	Classroom Management for K-12 Educators	1
EDUC 499C	Teaching Internship and Colloquia: Elementary	12
Parxis II Exam Passed		
Total Semester Credit Hours		**38**

1 Must earn a grade of "B" or higher.

2 Calculus I-GTMA1 (MATH 151) and Engineering Calculus I (MATH 135) are acceptable substitutions for Applied Calculus-GTMA1 (MATH 131).

3 880 field experience hours.

4 Program Requirements: ENGL 111, ENGL 112, PSYC 233, EDUC 115 and EDUC 215, MATH 105, and MATH 205 and formal acceptance to the Teacher Education Program.

5 All EDUC prefix courses listed above must be completed with a grade of B or better to progress through the program sequence.

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
POLS 101	American Government-GTSS1	3
KINA Activity		1
Essential Learning - Fine Arts		3
Essential Learning - Geology		3
Essential Learning - History		3
	Semester Credit Hours	**16**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
MATH 105	Elements of Mathematics I	3
EDUC 115	What It Means To Be An Educator	1
Elementary Core - Natural Sciences		3
Essential Learning - Humanities		3
Essential Learning - Social and Behavioral Science		3
	Semester Credit Hours	**16**
Second Year		
Fall Semester		
EDUC 215	Teaching as a Profession	1
MATH 205	Elements of Mathematics II-GTMA1	3
PSYC 233	Human Growth and Development-GTSS3	3
STAT 200	Probability and Statistics-GTMA1	3
Elementary Core - Social Sciences		3
Essential Learning - Biology		3
Essential Learning - Biology Lab		1
	Semester Credit Hours	**17**
Spring Semester		
ENGL 240	Children's Literature	3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
MATH 131	Applied Calculus-GTMA1	4
Elementary Core - Social Sciences		3
Elementary Core - Natural Science		3
	Semester Credit Hours	**17**
Third Year		
Fall Semester		
EDUC 341	Pedagogy and Assessment: K-6/Elementary	3
EDUC 343	Teaching to Diversity	3
ENGL 343	Language Systems and Linguistic Diversity	3
KINE 100	Health and Wellness	1
MATH 301	Mathematics for Elementary Teachers	3
MATH - Concentration Course		3
	Semester Credit Hours	**16**
Spring Semester		
MATH 215 or CSCI 110	Technology for Mathematics Educators or Beginning Programming	3
EDUC 374	Exceptional and English Language Learners in the Inclusive Classroom	3
EDUC 378	Technology for K-12 Educators	1
EDUC 440	Methods of Teaching Language and Literacy: EC	3
ENGL 451	Understanding and Using English Grammar	3
KINE 321	Physical Activity and Health in the Classroom	3
MATH 389	Explorations in Mathematics for Elementary Educators	2
	Semester Credit Hours	**18**
Fourth Year		
Fall Semester		
ARTD 410	Elementary Art Education Methods	3

EDUC 441	Methods of Teaching Language and Literacy: Elementary	3
EDUC 451	Methods of Teaching Mathematics: Early Childhood/ Elementary	3
EDUC 461	Methods of Teaching Science and Social Studies: Early Childhood/Elementary	3
EDUC 471	Educational Assessment for the K-12 Educator	1
EDUC 475	Classroom Management for K-12 Educators	1
	Semester Credit Hours	**14**
Spring Semester		
EDUC 499C	Teaching Internship and Colloquia: Elementary	12
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**126**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Education: Elementary Education, Social Science, Liberal Arts (BA)

Degree: Bachelor of Arts
Major: Liberal Arts, Elementary Education
Concentration: Social Science

Program Code: 3791

The Center for Teacher Education offers a comprehensive program of study that leads to licensure in Colorado. Our professors are experienced, knowledgeable, accessible, and dedicated to the improvement of public education. At Colorado Mesa University, we pride ourselves on the personal touch. Faculty offer one-on-one guidance for course selection, field placements, student teaching, and employment. Our mission is to develop *Educators as Innovators;* we are always looking to improve the quality of learning in our programs and K-12 schools.

As a student, you will gradually accumulate over 200 hours of classroom experience before beginning student teaching. School districts throughout western Colorado provide opportunities to gain experience with children of all ages and backgrounds in a variety of school settings.

The elementary licensure program provides teacher education candidates with a broad content knowledge and prepares them as teachers for grades kindergarten through six. A minimum of 60 credit hours of Essential Learning and content area coursework must be completed with a minimum GPA of 2.80 before a candidate may apply for admission to the Center for Teacher Education elementary licensure program. Please see the Teacher Education Admission Packet for further information on admissions criteria. EDUC 115 and EDUC 215 must be taken before applying to the program.

Important information for this program:

- Students must maintain 2.80 cumulative GPA or higher in all CMU coursework.
- Must earn a grade of "C" or better in all required courses, unless otherwise noted.
- Foreign language proficiency must be demonstrated by high school course work (2 years), college coursework (2 semesters), or competency testing.
- Students must pass the PRAXIS II exam in the content area prior to beginning the internship. All other coursework toward the degree must be successfully completed prior to the internship.
- The program requires ENGL 111, ENGL 112, PSYC 233, EDUC 115, EDUC 215, MATH 105, and MATH 205 (all with a grade of "B" or better) and formal acceptance to the Teacher Education Program.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Demonstrate mastery of major area's content knowledge and pedagogical strategies through fieldwork with learners in professional settings. (Specialized Knowledge/Applied Learning)
2. Design and establish a safe, inclusive, and respectful learning environment for a diverse population of students. (Specialized Knowledge/Applied Learning)
3. Plan and deliver effective instruction to students, based on research-based pedagogical practices. (Communication Literacy/Information Literacy)
4. Collect and analyze student assessment data and use results to inform planning and instruction. (Quantitative Fluency)

5. Demonstrate professionalism through ethical conduct, reflection, and leadership. (Personal and Social Responsibility)
6. Assess the importance of historical and cultural context. (Specialized Knowledge/Applied Learning)
7. Critically analyze an argument based on secondary sources. (Critical Thinking)
8. Formulate the relationships of cause and effect.(Specialized Knowledge/Applied Learning)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Specific to this degree:

- 126 semester hours required for the BA in Liberal Arts, Elementary Education, English.

Essential Learning Requirements

(31 semester hours, must earn a grade of “C” or better in each course, unless otherwise noted.)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1,2]		
MATH 205	Elements of Mathematics II-GTMA1	3
History		
Select one History course [3]		3
Humanities		
Select one Humanities Course [4]		3
Social and Behavioral Sciences		
PSYC 233	Human Growth and Development-GTSS3	3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [5]		
Select one BIOL course		3
Select corresponding BIOL lab		1
Select one GEOL course		3
Total Semester Credit Hours		**31**

1 Must receive a grade of “B” or better and must be completed by the time the student has 60 semester hours.
2 Must be taken after MATH 105.
3 HIST 131 or HIST 132 recommended.
4 ENGL or HIST course recommended.
5 One course must include a lab.

Other Lower Division Requirements

Must earn a grade of “C” or better in each course, unless otherwise noted.

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3

ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Program Specific Degree Requirements

(89 semester hours, a grade of "C" or better must be earned in all required courses, unless otherwise stated. Must also maintain a 2.80 cumulative GPA or higher in coursework in this area. A grade of "B" or better is required for all EDUC courses.)

- Students must pass the PRAXIS II exam in the content area prior to beginning the internship. All other coursework toward the degree must be successfully completed prior to the internship.
- The program requires ENGL 111, ENGL 112, PSYC 233, EDUC 115, EDUC 215, MATH 105, and MATH 205 (all with a grade of "B" or better) and formal acceptance to the Teacher Education Program.

Code	Title	Semester Credit Hours
Literacy and Mathematics		
ENGL 240	Children's Literature	3
ENGL 343	Language Systems and Linguistic Diversity	3
ENGL 451	Understanding and Using English Grammar	3
MATH 105	Elements of Mathematics I [1]	3
MATH 301	Mathematics for Elementary Teachers	3
Kinesiology		
KINE 321	Physical Activity and Health in the Classroom	3
Social Sciences		
POLS 101	American Government-GTSS1	3
Select two of the following:		6
ANTH 220	Principles of Archaeology-GTSS3	
or ANTH 225	North American Archaeology	
ECON 201	Principles of Macroeconomics-GTSS1	
HIST 101	Western Civilization I-GTHI1	
HIST 131	United States History I-GTHI1	
HIST 132	United States History II-GTHI1	
HIST 225	History of Colorado-GTHI1	
HIST 315	Indigenous American History	
HIST 316	American Slavery	
HIST 320	The American West	
HIST 331	The 20th Century	
HIST 344	The Age of Industry in America	
HIST 345	History of Immigration, Race, and Ethnicity in America	
GEOG 102	Human Geography-GTSS2	
or GEOG 103	World Regional Geography-GTSS2	
Science		
Select two Natural Sciences courses from approved Essential Learning list or BIOL 209 or BIOL 210		6
Art		
ARTD 410	Elementary Art Education Methods	3

Elementary Education Concentration: Social Science		
Social Science Content Area Required Courses		
HIST 102	Western Civilization II-GTHI1	3
ANTH 202	Introduction to Anthropology-GTSS3	3
POLS 236	State and Local Government	3
Social Science Concentration Electives		
Select two of the following:		6
HIST 300	History of England to 1660	
HIST 301	History of Modern Britain	
HIST 302	History of Modern France	
HIST 303	History of Modern Germany	
HIST 330	History of 19th Century Europe	
HIST 331	The 20th Century	
HIST 350	Renaissance and Reformation	
HIST 360	Medieval Europe	
HIST 400	The Soviet Union and Eastern Europe	
HIST 430	The Ancient Mediterranean World	
HIST 445	The Holocaust	
HIST 450	European History and Film	
HIST 310	Latin American Civilization	
HIST 311	The World Wars	
HIST 319	History of the United States-Mexico Borderlands	
HIST 333	The International History of the Cold War	
HIST 334	History of the British Empire	
HIST 340	History of the Middle East	
HIST 403	East Asia and the Modern World	
HIST 406	History of the African Continent	
HIST 305	The Old South	
HIST 314	African American History	
HIST 342	The Early American Republic	
HIST 344	The Age of Industry in America	
HIST 345	History of Immigration, Race, and Ethnicity in America	
HIST 346	The United States in the 1950s and 1960s	
HIST 347	Global America: 1970-2000	
HIST 348	The History of Food in America	
HIST 370	Early United States Women's History	
HIST 371	20th Century United States Women's History	
HIST 415	Colonial America	
HIST 416	The American Revolution	
HIST 420	Civil War	
HIST 315	Indigenous American History	
HIST 316	American Slavery	
HIST 320	The American West	
HIST 332	History of Modern Warfare	
HIST 355	Ancient and Medieval Cities	
HIST 375	American Sport History	
HIST 394	Junior Seminar in Historiography	
HIST 396	Topics	
HIST 405	Introduction to Public History	
HIST 409	Material Culture Studies	
HIST 410	Environmental History of the United States	

HIST 425	History of Sexuality
HIST 435	Classical Archaeology
HIST 440	Early and Medieval Christianity
HIST 496	Topics
Total Semester Credit Hours	**51**

Code	Title	Semester Credit Hours
Elementary Education Requirements [2,3,4]		
EDUC 115	What It Means To Be An Educator	1
EDUC 215	Teaching as a Profession	1
EDUC 341	Pedagogy and Assessment: K-6/Elementary	3
EDUC 343	Teaching to Diversity	3
EDUC 374	Exceptional and English Language Learners in the Inclusive Classroom	3
EDUC 378	Technology for K-12 Educators	1
EDUC 440	Methods of Teaching Language and Literacy: EC	3
EDUC 441	Methods of Teaching Language and Literacy: Elementary	3
EDUC 451	Methods of Teaching Mathematics: Early Childhood/Elementary	3
EDUC 461	Methods of Teaching Science and Social Studies: Early Childhood/Elementary	3
EDUC 471	Educational Assessment for the K-12 Educator	1
EDUC 475	Classroom Management for K-12 Educators	1
EDUC 499C	Teaching Internship and Colloquia: Elementary	12
Praxis II Exam Passed		
Total Semester Credit Hours		**38**

1 Must earn a grade of "B" or higher.
2 840 field experience hours.
3 Program Requirements: ENGL 111, ENGL 112, PSYC 233, EDUC 115 and EDUC 215, and MATH 105 (all with a grade of B or better) and formal acceptance to the Teacher Education Program.
4 All EDUC prefix courses must be completed with a grade of B or better to progress through the program sequence.

All EDUC prefix courses listed above must be completed with a grade of B or better to progress through the program sequence. Students must PASS the PRAXIS II exam in the content area prior to commencing the internship. Also, ALL other coursework toward the degree must be successfully completed prior to the internship.

Suggested Course Plan

First Year

Fall Semester		Semester Credit Hours
ENGL 111	English Composition I-GTCO1	3
POLS 101	American Government-GTSS1	3
KINA Activity		1
Essential Learning - Fine Arts		3
Essential Learning - Geology		3
Essential Learning - History		3
	Semester Credit Hours	**16**

Spring Semester		
EDUC 115	What It Means To Be An Educator	1
ENGL 112	English Composition II-GTCO2	3
KINE 100	Health and Wellness	1
MATH 105	Elements of Mathematics I	3
Essential Learning - Humanities		3
Essential Learning - Social and Behavioral Sciences		3
Elementary Core - Natural Sciences		3
	Semester Credit Hours	**17**

Second Year

Fall Semester		
HIST 102	Western Civilization II-GTHI1	3
PSYC 233	Human Growth and Development-GTSS3	3
MATH 205	Elements of Mathematics II-GTMA1	3
Essential Learning - Biology		3
Essential Learning - Biology Lab		1
Elementary Core - Social Sciences		3
	Semester Credit Hours	**16**

Spring Semester		
ANTH 202	Introduction to Anthropology-GTSS3	3
EDUC 215	Teaching as a Profession	1
ENGL 240	Children's Literature	3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Elementary Core - Social Sciences		3
Elementary Core - Natural Sciences		3
	Semester Credit Hours	**17**

Third Year

Fall Semester		
EDUC 341	Pedagogy and Assessment: K-6/Elementary	3
EDUC 343	Teaching to Diversity	3
ENGL 343	Language Systems and Linguistic Diversity	3
MATH 301	Mathematics for Elementary Teachers	3
POLS 236	State and Local Government	3
Social Science Concentration Course		3
	Semester Credit Hours	**18**

Spring Semester		
EDUC 374	Exceptional and English Language Learners in the Inclusive Classroom	3
EDUC 378	Technology for K-12 Educators	1
EDUC 440	Methods of Teaching Language and Literacy: EC	3
ENGL 451	Understanding and Using English Grammar	3
KINE 321	Physical Activity and Health in the Classroom	3
Social Science Concentration Course		3
	Semester Credit Hours	**16**

Fourth Year

Fall Semester		
ARTD 410	Elementary Art Education Methods	3
EDUC 441	Methods of Teaching Language and Literacy: Elementary	3
EDUC 451	Methods of Teaching Mathematics: Early Childhood/ Elementary	3
EDUC 461	Methods of Teaching Science and Social Studies: Early Childhood/Elementary	3
EDUC 471	Educational Assessment for the K-12 Educator	1
EDUC 475	Classroom Management for K-12 Educators	1
	Semester Credit Hours	**14**

Spring Semester		
EDUC 499C	Teaching Internship and Colloquia: Elementary	12
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**126**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

General Studies, Liberal Arts (BA)

Degree: Bachelor of Arts
Major: Liberal Arts - General Studies
Program Code: 3250

While Colorado Mesa University provides a wide range of programs, the university may not offer a standard bachelor's degree program that serves a student's particular need. A liberal arts degree, however, is designed to offer a student the opportunity to craft a plan of study to suit his/her individual career and academic aspirations. Under the direction of an advisor, a liberal arts major will design a coherent program by choosing appropriate courses that focus on a very specific field of study.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Evaluate the interconnections of knowledge within and across at least two major disciplines;
2. Synthesize insights, content, and/or methodologies of two or more major disciplines
3. Develop solutions to specific problems by drawing from several relevant fields of study
4. Effectively defend conclusions in verbal and written presentations

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 110	Mathematical Investigations-GTMA1	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [2]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

[1] Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

[2] One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(6 semester hours, must earn a "C" or better in each course)

Code	Title	Semester Credit Hours
Two consecutive classes in the same foreign language		6
Total Semester Credit Hours		**6**

Program Specific Degree Requirements

(40 semester hours, must maintain a 2.00 cumulative GPA or higher in coursework in this area.)

- Before declaring a Liberal Arts—General Studies major, the student must have the permission of an academic advisor, who will also work with the student in constructing an appropriate course of study and Capstone Experience.

Code	Title	Semester Credit Hours
Capstone Experience		
3 semester hours of upper-division independent study, internship, or other coursework as recommended by an academic advisor		3
Other Upper Division Courses		
37 credits of upper division coursework in any discipline		37
Total Semester Credit Hours		**40**

General Electives

All college-level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours. 37 semester hours.

Code	Title	Semester Credit Hours
Select electives		37
Total Semester Credit Hours		**37**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Interdisciplinary Studies, Liberal Arts (BAS)

Degree: Bachelor of Applied Science
Major: Interdisciplinary Studies
Program Code: 3050

The Bachelor of Applied Science in Interdisciplinary Studies builds upon a technical specialty to hone the critical thinking, communication, and problem-solving skills necessary to move into leadership positions in any industry. By completing the full Essential Learning curriculum, including the Essential Learning Capstone, students will gain exposure to multiple disciplines and ways of approaching problems. Students will work with an advisor to identify upper-division courses that will best meet their interests and career goals. The BAS in Interdisciplinary Studies is a path for two-year technical degree graduates to earn a 4-year degree in approximately four additional full-time semesters, depending upon prior coursework. Upon completion of the program, students will be technically and academically prepared for leadership positions in their chosen field.

Important information about this degree:

- Formal admission to a BAS program requires completion of the appropriate AAS degree from an accredited institution.
- In order to pursue the BAS: Interdisciplinary Studies, a student must first provide to the Office of Academic Affairs a signed letter from a faculty member in her or his chosen focus area indicating a course sequencing for the focus area as well as a broad description of the student's summative project. Upon approval by an Assistant Vice-President for Academic Affairs, the student will be declared a BAS: Interdisciplinary Studies major, and the faculty recommender will be assigned as academic advisor. Changes to the course sequencing provided in the letter will require approval by the academic advisor.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Construct a summative project, paper or practiced-based performance that draws on current research, scholarship and/or techniques, and specialized knowledge in a discipline (communication; specialized knowledge/applied learning).
2. Integrate knowledge between their applied field and one other discipline (critical thinking).
3. Describe reasoned conclusions that articulate the implications and consequences for a particular decision by synthesizing information and methodologies (critical thinking).

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU Bachelor of Applied Science (BAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Completion of an appropriate Associate of Applied Science (AAS) degree from an accredited institution is required for the BAS; exceptions must be approved by the BAS advisor and department head.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 33 upper-division credits.
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements. The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.

- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 110	Mathematical Investigations-GTMA1	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [2]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

[1] Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

[2] One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Program Specific Degree Requirements

(69 semester hours)

Associate of Applied Science Technical Coursework

To be admitted to the BAS, a student must have earned an Associate of Applied Science (AAS) degree. Thirty-six (36) hours from the technical coursework of that AAS degree transfer into the BAS as a block of courses.

Code	Title	Semester Credit Hours
Credits from prior qualifying AAS		36

Requirements

Code	Title	Semester Credit Hours
Focus Area		
Select 12 upper-division credits from one field of study [1]		12
Summative Experience		
An upper-division internship, practicum, independent study or coursework that connects the focus area with the technical coursework [1]		3
Upper Division Electives		
Select 18 credits of upper division electives		18
Total Semester Credit Hours		**33**

[1] As approved by a faculty advisor.

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours. 14 semester hours.

Code	Title	Semester Credit Hours
Select electives		14
Total Semester Credit Hours		**14**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for her/his intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audits on a regular basis and should discuss questions or concerns with their advisors or academic

department heads. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

University Studies, Liberal Arts (AA)

Degree: Associate of Arts
Major: Liberal Arts
Emphasis: University Studies
Program Code: 2050

The Associate of Arts (AA) degree is designed for students who intend to continue their education and obtain a baccalaureate degree. The AA is the appropriate choice for students who will take upper division coursework in the arts, humanities, or social and behavioral sciences. The degree program includes the Colorado Statewide General Education Core and meets the lower-division general education requirements at most public institutions in Colorado. The University Studies emphasis, by offering a broad range of flexibility in elective courses, provides an opportunity for students who may be potentially exploring their career and major options without regard to a particular disciplinary track.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Locate, gather and organize evidence on an assigned topic addressing a course or discipline-related question or a question of practice in a work or community setting (specialized knowledge/applied learning);
2. Use program-level mathematical concepts and methods to understand, analyze, and explain issues in quantitative terms (quantitative fluency);
3. Make and defend claims in a well-organized, professional document and/or oral presentation that is appropriate for a specific audience (communication fluency);
4. Identify and gather the information/data relevant to the essential question, issue and/or problem and develop informed conclusions (critical thinking).

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU or CMU Tech Associate of Arts (AA) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours total.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade of "C" or higher must be earned in all Essential Learning courses in order to be accepted for transfer under the Colorado Core Transfer Consortium General Education curriculum or gtPathways, Colorado's guaranteed transfer program.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 15 semester credit hours for an AA degree. A maximum of 6 of the 15 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for

your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 110	Mathematical Investigations-GTMA1	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [2]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

[1] Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

[2] One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Total Semester Credit Hours		**2**

Program Specific Degree Requirements

(27 semester hours of general electives)

Code	Title	Semester Credit Hours
Select electives		27
Total Semester Credit Hours		**27**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
Essential Learning - Mathematics		3
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - Natural Sciences without lab		3
General Elective		3
	Semester Credit Hours	**15**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
KINE 100	Health and Wellness	1
Wellness Requirement - Activities Course		1
Essential Learning - Natural Sciences with lab		4
General Electives		6
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
Essential Learning - Fine Arts		3
Essential Learning - Social and Behavioral Sciences		3
General Elective		3
General Elective		3
General Elective		3
	Semester Credit Hours	**15**
Spring Semester		
Essential Learning - Humanities		3
General Elective [1]		3
General Elective		3
General Elective		3
General Elective		3
	Semester Credit Hours	**15**
	Total Semester Credit Hours	**60**

[1] Students that intend to continue with Colorado Mesa University for baccalaureate study should take ESSL 290 and ESSL 200 during the final semester of their Associate of Arts work.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for her/his intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.

- Submit the “Intent to Graduate” form to the Registrar’s Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's “Intent to Graduate” does not automatically move to a later graduation date.

Manufacturing Technology

Program Description

Computer-Aided Design Technology

The Computer-Aided Design program prepares the student for employment in Mechanical, Architectural and Civil Design. Through the use of current CAD software, students will build their skill level beginning with two dimensional drawings and working their way up to three dimensional solid based modeling. With the majority of the work completed on the computer and a project in the area of student’s interest, this program ties the course to real world concepts. Career options include Architectural Drafter/Designer, Mechanical Drafter/Designer, and Civil Drafter/Designer.

Machine and Manufacturing Trades

The machining and manufacturing trades specialization offers classroom instruction and related lab work with hands-on activities in the use of machine tools and the operation of equipment found in manufacturing. Students work in the area of blueprint reading, computer numerical control (CNC), machining, general machining and maintenance, CAD, and related mathematics. The program is designed to meet competency-based standards set by the industry. Attitude and quality of workmanship are stressed. Career options include entry level machinist, computer numerical control operator, numerical tool and process technician, manufacturing engineering technician, and manufacturing inspection technician.

Machining Technology

The Associate of Applied Science with the manufacturing technology major offers classroom instruction and related lab work with hands-on activities in the use of machine tools and the operation of equipment found in manufacturing. In the machining technology emphasis students learn to apply industrial knowledge and skills to plan and implement designs, operate manual mills and lathes, operate computer-aided machinery with CAD/CAM software and computer numerical controlled (CNC) machines. Students also develop the skills that enable them to read blueprints, apply appropriate mathematical concepts and understand the properties of metal and polymers. This course of study is designed to meet competency-based standards set by the manufacturing industry. With this degree, students will be qualified for the following employment opportunities: entry-level machinist, computer numerical control operator, numerical tool and process technician, manufacturing engineering technician, and manufacturing inspection technician.

Welding Technology

The Welding Technology program is designed to provide training and opportunity to become proficient at SMAW, GMAW, GTAW, FCAW, OAW, OAC, PAC, CAC-A on plate, and Robotic Welding with state-of-the art welding instruction. This program offers classroom lecture and related lab work. Students study welding, cutting, layout, fabrication and technical math. Safety, attitude and quality of workmanship are stressed throughout this course. The welding certificate prepares students for entry-level placement in a wide range of jobs in the welding industry and is designed to meet competency based standards set by the American Welding Society. This program trains students to become certified AWS, API, ASME welders in the welding industry.

The Welding Technology AAS degree prepares students for advanced level placement in a wide range of jobs in the welding industry and is

designed to meet competency based standards set by the American Welding Society.

Certificate programs are designed to be employment-directed for beginning level jobs. Students should check with a welding instructor/advisor about options for specialized employment training requiring a shorter period of training.

The Associate of Applied Science degree program includes many of the same technical courses as the technical certificate. Also included are machining and Computer Aided Design (CAD) courses that are essential for job advancement to more technical levels after employment.

Courses are designed to give students an adequate knowledge of metals, layout work and welding processes, along with an opportunity to gain hands-on skills and the related information needed to enter and progress in various welding occupations. Instruction and shop practice is offered in SMAW, GMAW, FCAW, and GTAW of mild steel in all positions as well as pipe and specialty welding. Various cutting and fabrication methods are included. Students can arrange work experience as an elective part of the regular program after completing two semesters or more.

Contact Information

CMU Tech
Office of Student Services, Kayenta Hall 102
2508 Blichmann Avenue
970.255.2670

Programs of Study

Associates

- Machining Technology, Manufacturing Technology (AAS) (p. 562)
- Welding Technology, Manufacturing Technology (AAS) (p. 564)

Certificates

- Architectural Drafting, Manufacturing Technology (Technical Certificate) (p. 566)
- Basic Welder, Manufacturing Technology (Technical Certificate) (p. 568)
- Civil Drafting, Manufacturing Technology (Technical Certificate) (p. 569)
- CNC Machinist, Manufacturing Technology (Technical Certificate) (p. 570)
- Computer Aided Design/Computer Aided Manufacturing (CAD/CAM), Manufacturing Technology (Technical Certificate) (p. 571)
- Entry Level Machining, Manufacturing Technology (Technical Certificate) (p. 573)
- Machine and Manufacturing Trades, Manufacturing Technology (Technical Certificate) (p. 574)
- Manual Machinist, Manufacturing Technology (Technical Certificate) (p. 575)
- Mechanical Drafting, Manufacturing Technology (Technical Certificate) (p. 577)
- Welding Technology, Manufacturing Technology (Technical Certificate) (p. 578)

Machining Technology, Manufacturing Technology (AAS)

Degree: Associate of Applied Science
Major: Manufacturing Technology
Emphasis: Machining Technology
Program Code: 1331

The Associate of Applied Science with the Manufacturing Technology major offers classroom instruction and related lab work with hands-on activities in the use of tools and the operation of equipment found in manufacturing. In the Machining Technology emphasis students learn to apply industrial knowledge and skills to plan and implement designs, operate manual mills and lathes, operate computer-aided machinery with CAD/CAM software, and computer-numerical controlled (CNC) machines. Students also develop the skills that enable them to read blueprints, apply appropriate mathematical concepts, and understand the properties of metal and polymers. This course of study is designed to meet competency-based standards set by the manufacturing industry. With this degree, students will be qualified for the following employment opportunities: entry-level machinist, computer-numerical control operator, numerical tool and process technician, manufacturing engineering technician, and manufacturing inspection technician.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Use written and oral communication skills needed for entry level employment in the manufacturing industry (Communication Fluency).
2. Apply mathematical concepts to perform machining tasks (Quantitative Fluency).
3. Summarize business practices, principles and application of associated technical skill in the machining industry (Specialized Knowledge).
4. Apply the necessary machining skill sets to perform specified manufacturing processes (Applied Learning).
5. Determine ethical and civil responsibility necessary for employees in the machining industry (Specialized Knowledge).

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Specific to this program:

- 61 semester hours total for the AAS, Manufacturing Technology - Machining Technology.

Essential Learning Requirements

(15 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
Communication		
ENGL 111	English Composition I-GTCO1	3
Select one of the following courses:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communication	
SPCH 102	Speechmaking	
Mathematics		
MATH 107	Career Math (or higher)	3
Other Essential Learning Core Courses		
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
Total Semester Credit Hours		**15**

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
KINA 1XX	Activity Course	1
Total Semester Credit Hours		**2**

Program Specific Degree Requirements

(44 semester hours, must earn a grade of "C" or better in each course.)

Code	Title	Semester Credit Hours
ENGR 125	Computer-Aided Design and Fabrication	3
or CADT 109	CAD-Mechanical Engineering	
MAMT 101	Introduction to Manufacturing	2
MAMT 105	Print Reading and Sketching	2
MAMT 106	Geometric Tolerancing	2
MAMT 115	Introduction to Machine Shop	3
MAMT 120	Machine Technology I	4
MAMT 125	Machine Technology II	4
MAMT 230	Machine Technology III	4
MAMT 240	Job Shop Machining II	3
or MAMT 170	Practical Applications	
MAMT 148	CNC Applications	3
MAMT 251	CNC Machining I	3
MAMT 255	CNC Machining II	3
MAMT 260	Properties of Materials	3
MAMT 207	Introduction to Statistical Process Control	2
Total Semester Credit Hours		**41**

Code	Title	Semester Credit Hours
Restricted Electives		
Select one of the following:		3
WELD 151	Introduction to Welding	
TSTG 220	Workplace Skills	
CADT 108	CAD - Mechanical	
Total Semester Credit Hours		**3**

Suggested Course Plan

First Year

Fall Semester		Semester Credit Hours
MAMT 101	Introduction to Manufacturing	2
MAMT 105	Print Reading and Sketching	2
MAMT 115	Introduction to Machine Shop	3

MAMT 120	Machine Technology I	4
MAMT 148	CNC Applications	3
MATH 107	Career Math	3
	Semester Credit Hours	**17**
Spring Semester		
MAMT 106	Geometric Tolerancing	2
MAMT 125	Machine Technology II	4
MAMT 230	Machine Technology III	4
MAMT 251	CNC Machining I	3
MAMT 255	CNC Machining II	3
MAMT 240 or MAMT 170	Job Shop Machining II or Practical Applications	3
	Semester Credit Hours	**19**
Second Year		
Fall Semester		
ENGL 111	English Composition I-GTCO1	3
Essential Learning Social Science, Natural Science, Fine Arts, or Humanities		3
Essential Learning Social Science, Natural Science, Fine Arts, or Humanities		3
KINE 100	Health and Wellness	1
MAMT 207	Introduction to Statistical Process Control	2
	Semester Credit Hours	**12**
Spring Semester		
ENGR 125 or CADT 109	Computer-Aided Design and Fabrication or CAD-Mechanical Engineering	3
Select one of the following:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communication	
SPCH 102	Speechmaking	
KINA 1XX	Activity Course	1
MAMT 260	Properties of Materials	3
Restricted Elective		3
	Semester Credit Hours	**13**
	Total Semester Credit Hours	**61**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Welding Technology, Manufacturing Technology (AAS)

Degree: Associate of Applied Science
Major: Manufacturing Technology
Emphasis: Welding Technology
Program Code: 1332

This Welding Technology Degree program is designed to provide training and opportunity to become proficient at SMAW, GMAW, GTAW, FCAW, OAC, PAC, blueprint reading, pipe welding, fabrication, automation, layout, mathematics, and safety. This program offers classroom lecture and related lab work. Students study welding, cutting, layout, fabrication and technical math. Safety, attitude and quality of workmanship are stressed throughout this course. The welding AAS degree prepares students for advanced level placement in a wide range of jobs in the welding industry and is designed to meet competency based standards set by the American Welding Society. This program prepares students to become AWS certified welders.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Apply business communication using listening, verbal and written forms that are needed for entry level employment in the industry. (Communication Fluency)
2. Apply Mathematical concepts for the Welding industry to meet entry level employment requirements. (Quantitative Fluency
3. Research, evaluate, synthesize and apply information/data relevant to the welding industry. (Critical Thinking, Information Literacy)
4. Demonstrate knowledge of terminology, symbols, business practices, principles and application of associated technical skills in the industry. (Specialized Knowledge)
5. Perform the necessary applied welding skill sets to fulfill the needs of entry level employment. (Specialized Knowledge)
6. Demonstrate ethical and civic responsibility necessary for employees in the welding industry. (Personal and Social Responsibility)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Specific to this program:

- 64 semester hours total for the AAS, Manufacturing Technology - Welding Technology.

Essential Learning Requirements

(15 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
Communication		
ENGL 111	English Composition I-GTCO1	3
SPCH 101	Interpersonal Communication	3
Mathematics		
MATH 107	Career Math (or higher)	3
Other Essential Learning Core Courses		
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
Total Semester Credit Hours		**15**

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Total Semester Credit Hours		**2**

Program Specific Degree Requirements

(47 semester hours, must earn a grade of “C” or better in each course.)

- Students in Welding may be required to purchase approximately $500.00 in tools and personal safety welding equipment. This does not include required textbooks. These costs may vary with student need and brand or quality of tools or equipment purchased. All safety glasses must meet the minimum industry safety standard of Z-87 with side shields.

Code	Title	Semester Credit Hours
ELCE 124	Electrical Safety	1
MAMT 105	Print Reading and Sketching	2
MAMT 101	Introduction to Manufacturing	2
MAMT 260	Properties of Materials	3
WELD 110	Shielded Metal Arc Welding	4
WELD 111	Shielded Metal Arc Welding 2	4
WELD 114	Oxy-Fuel Welding & Brazing	2
WELD 117	Oxy-Fuel and Plasma Arc Cutting	2
WELD 133	Fabrication & Blueprints for Welders	4
WELD 201	Gas Metal Arc Welding	4
WELD 230	Gas Tungsten Arc Welding	4
WELD 240	Pipe Welding	4
WELD 203	Flux Cored Arc Welding	4
WELD 275	Automation	4
Total Semester Credit Hours		**44**

Code	Title	Semester Credit Hours
Restricted Electives		
Select one of the following:		3
CADT 108	CAD - Mechanical	
MAMT 115	Introduction to Machine Shop	
TSTG 150	Introduction to Fluid Power	
TSTG 220	Workplace Skills	
Total Semester Credit Hours		**3**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
MAMT 105	Print Reading and Sketching	2
ELCE 124	Electrical Safety	1
WELD 110	Shielded Metal Arc Welding	4
WELD 117	Oxy-Fuel and Plasma Arc Cutting	2
MATH 107	Career Math	3
WELD 201	Gas Metal Arc Welding	4
	Semester Credit Hours	**16**
Spring Semester		
WELD 133	Fabrication & Blueprints for Welders	4
WELD 203	Flux Cored Arc Welding	4
WELD 111	Shielded Metal Arc Welding 2	4
WELD 230	Gas Tungsten Arc Welding	4
	Semester Credit Hours	**16**
Second Year		
Fall Semester		
ENGL 111	English Composition I-GTCO1	3
KINE 100	Health and Wellness	1
KINA 1XX	Activity	1
WELD 114	Oxy-Fuel Welding & Brazing	2
MAMT 101	Introduction to Manufacturing	2
WELD 240	Pipe Welding	4
Social Sciences, Natural Science, Fine Arts, or Humanities		3
	Semester Credit Hours	**16**
Spring Semester		
SPCH 101	Interpersonal Communication	3
MAMT 260	Properties of Materials	3
WELD 275	Automation	4
Social Sciences, Natural Science, Fine Arts, or Humanities		3
Restricted Electives		3
	Semester Credit Hours	**16**
	Total Semester Credit Hours	**64**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Architectural Drafting, Manufacturing Technology (Technical Certificate)

Award: Technical Certificate
Program of Study: Manufacturing Technology
Specialization: Architectural Drafting
Program Code: 1175

In this Technical Certificate, students learn drafting concepts and the processes of orthographic projection, pictorial drawing, dimensioning, and geometric construction by hand and with CAD software and equipment. Students will also gain fundamental knowledge of architectural drafting. The majority of a student's work will be completed on the computer. A project in the area of the student's interest will tie the course to real world concepts.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Apply principles of grammar and vocabulary in documentation required to perform the duties of an Architectural Drafting technician and effectively interview clients and communicate with constituents. (Communication Fluency)

2. Apply mathematical concepts and practices that are required to properly perform calculation for design. (Quantitative Fluency)
3. Utilize correct materials, size and design based upon client consultation and industry knowledge. (Critical Thinking)
4. Demonstrate mastery of terminology, concepts, methodologies in the Architectural Drafting industry. (Specialized Knowledge)
5. Demonstrate mastery of specific Architectural CAD software and generate substantially error free designs. (Specialized Knowledge).

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than “C” will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

Code	Title	Semester Credit Hours
CADT 106	Computer Aided Design	3
CADT 140	Architectural Theory and Structural Materials	3
CADT 142	CAD - Residential Architecture	3
CADT 143	CAD-Commercial Architecture	3
CADT 210	Project	3
CONC 104	Architectural/Civil Print Reading	2
Total Semester Credit Hours		**17**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
CADT 106	Computer Aided Design	3
CADT 140	Architectural Theory and Structural Materials	3
CADT 142	CAD - Residential Architecture	3
CADT 143	CAD-Commercial Architecture	3
CADT 210	Project	3
CONC 104	Architectural/Civil Print Reading	2
	Semester Credit Hours	**17**
	Total Semester Credit Hours	**17**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student’s responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar’s Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar’s Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.

- Submit the “Intent to Graduate” form to the Registrar’s Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's “Intent to Graduate” does not automatically move to a later graduation date.

Basic Welder, Manufacturing Technology (Technical Certificate)

Award: Technical Certificate
Program of Study: Manufacturing Technology
Specialization: Basic Welder
Program Code: 1110

This Basic Welder program is designed to provide training and opportunity to become proficient at SMAW, GMAW, OAC, PAC, blueprint reading, mathematics, and safety. This program offers classroom lecture and related lab work. Welding, cutting, layout, safety, attitude and quality of workmanship are stressed throughout this program. The Basic Welding certificate prepares students for welding helper-apprentice position in the welding industry and is designed to meet competency based standards set by the American Welding Society. This program prepares students to become certified AWS certified welders in the welding industry upon successful completion of the appropriate test standard.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Apply business communication using listening, verbal and written forms that are needed for entry level employment in the industry. (Communication Fluency)
2. Apply Mathematical concepts to meet entry level employment requirements. (Quantitative Fluency)
3. Research, evaluate, synthesize and apply information/data relevant to the industry. (Critical Thinking)
4. Demonstrate knowledge of welding terminology, symbols, business practices, principles and application of associated technical skills (Specialized Knowledge/Applied Learning)
5. Perform the necessary applied welding skill sets to fulfill the needs of entry level employment. (Applied Learning)
6. Demonstrate ethical and civic responsibility necessary for employees in the industry. (Specialized Knowledge).

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than “C” will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(16 semester hours)

- Students in Welding may be required to purchase approximately $500.00 in tools and personal safety welding equipment. This does not include required textbooks. These costs may vary with student need and brand or quality of tools or equipment purchased. All safety glasses must meet the minimum industry safety standard of Z-87 with side shields.

Code	Title	Semester Credit Hours
MAMT 105	Print Reading and Sketching	2
WELD 110	Shielded Metal Arc Welding	4
WELD 117	Oxy-Fuel and Plasma Arc Cutting	2
WELD 201	Gas Metal Arc Welding	4
MATH 107	Career Math	3
ELCE 124	Electrical Safety	1
Total Semester Credit Hours		**16**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Civil Drafting, Manufacturing Technology (Technical Certificate)

Award: Technical Certificate
Program of Study: Manufacturing Technology
Specialization: Civil Drafting
Program Code: 1176

In this Technical Certificate, students will gain fundamental knowledge of civil drafting. The majority of a student's work will be completed on the computer. A project in the area of the student's interest will tie the course to real world concepts.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Apply principles of grammar and vocabulary in documentation required to perform the duties of a Civil Drafting technician and effectively interview clients and community constituents. (Communication Fluency)
2. Apply mathematical concepts and practices that are required to properly perform calculation for design. (Quantitative Fluency)
3. Utilize correct materials, size and design based upon client consultation and industry knowledge. (Critical Thinking)
4. Demonstrate mastery of terminology, concepts, methodologies in the Civil Drafting industry. (Specialized Knowledge)
5. Demonstrate mastery of Specific Civil Design CAD software and generate substantially error free designs. (Specialized Knowledge)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and

internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.

- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

Code	Title	Semester Credit Hours
CADT 106	Computer Aided Design	3
CADT 130	CAD-Civil	3
CADT 135	CAD Civil II	3
CONC 104	Architectural/Civil Print Reading	2
Total Semester Credit Hours		**11**

Suggested Course Plan

First Year Fall Semester		Semester Credit Hours
CADT 106	Computer Aided Design	3
CADT 130	CAD-Civil [1]	3
CADT 135	CAD Civil II [1]	3
CONC 104	Architectural/Civil Print Reading	2
	Semester Credit Hours	**11**
	Total Semester Credit Hours	**11**

[1] CADT 130 is completed in the first mod, and CADT 135 is completed in the second mod.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

CNC Machinist, Manufacturing Technology (Technical Certificate)

Award: Technical Certificate
Program of Study: Manufacturing Technology
Specialization: CNC Machinist
Program Code: 1129

CMU Tech's Machine Technology program offers affordable, accessible, high quality manufacturing education and training at the Archuleta Engineering Center. Students learn to apply industrial knowledge and skills to plan and implement designs, operate manual mills and lathes, operate computer aided machinery with CAD/CAM software, and computer-numerical controlled (CNC) machines.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Apply the necessary CNC machining skill sets to perform specified manufacturing processes.(Applied Learning)
2. Demonstrate the basic operation of manual mills, lathes and operate computer-aided machinery with software. (Specialized Knowledge)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course

sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

Code	Title	Semester Credit Hours
MAMT 148	CNC Applications	3
MAMT 251	CNC Machining I	3
MAMT 255	CNC Machining II	3
Total Semester Credit Hours		**9**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
MAMT 148	CNC Applications	3
MAMT 251	CNC Machining I [1]	3
MAMT 255	CNC Machining II [1]	3
	Semester Credit Hours	**9**
	Total Semester Credit Hours	**9**

[1] MAMT 251 is completed in the first mod, and MAMT 255 is completed in the second mod.

Advising and Graduation
Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Computer Aided Design/Computer Aided Manufacturing (CAD/CAM), Manufacturing Technology (Technical Certificate)

Award: Technical Certificate
Program of Study: Manufacturing Technology
Specialization: CAD/CAM
Program Code: 1111

Through the use of Computer-aided Manufacturing (CAM) and Computer-aided Design (CAD), the student will learn the techniques of basic

drafting principles and methods used in today's manufacturing industry. Dimensioning, and geometric construction will be explored with CAD/CAM software and transferred to Computer Numerical Controlled (CNC) machines to operate machine tools and related machinery in the manufacturing and design of work pieces.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Use written and oral communication skills needed for entry level employment in the manufacturing industry. (Communication Fluency)
2. Apply mathematical concepts to perform machining tasks. (Quantitative Fluency)
3. Distinguish between tolerances and dimensions, as used in the machining industry. (Critical Thinking)
4. Summarize business practices, principles and application of associated technical skill in the machining in industry. (Specialized Knowledge)
5. Apply the necessary machining skill sets to perform specified manufacturing processes. (Applied Learning)
6. Determine ethical and civil responsibility necessary for employees in the machining industry. (Specialized Knowledge)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(19 semester hours)

Code	Title	Semester Credit Hours
MAMT 105	Print Reading and Sketching	2
MAMT 106	Geometric Tolerancing	2
MAMT 115	Introduction to Machine Shop	3
MAMT 251	CNC Machining I	3
CADT 109	CAD-Mechanical Engineering	3
or ENGR 125	Computer-Aided Design and Fabrication	
MAMT 148	CNC Applications	3
MAMT 255	CNC Machining II	3
Total Semester Credit Hours		**19**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.

- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the “Intent to Graduate” form to the Registrar’s Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's “Intent to Graduate” does not automatically move to a later graduation date.

Entry Level Machining, Manufacturing Technology (Technical Certificate)

Award: Technical Certificate
Program of Study: Manufacturing Technology
Specialization: Entry Level Machining
Program Code: 1127

Entry Level Machining program introduces manufacturing, print reading/sketching, and machining. Produces machined parts by operating a computer numerical control (CNC) machine; maintaining quality and safety standards; keeping records; maintaining equipment and supplies.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Use written and oral communication skills needed for entry-level employment in the manufacturing industry. (Communication Fluency)
2. Demonstrate basic manufacturing print reading/sketching and machining skills. (Applied Learning)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than “C” will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

Code	Title	Semester Credit Hours
MAMT 101	Introduction to Manufacturing	2
MAMT 105	Print Reading and Sketching	2
MAMT 106	Geometric Tolerancing	2
MAMT 115	Introduction to Machine Shop	3
MATH 107	Career Math	3
Total Semester Credit Hours		**12**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
MAMT 101	Introduction to Manufacturing	2
MAMT 105	Print Reading and Sketching	2
MAMT 106	Geometric Tolerancing	2
MAMT 115	Introduction to Machine Shop	3
MATH 107	Career Math	3
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**12**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Machine and Manufacturing Trades, Manufacturing Technology (Technical Certificate)

Award: Technical Certificate
Program of Study: Manufacturing Technology
Specialization: Machine and Manufacturing Trades
Program Code: 1337

This program offers classroom instruction and related lab work with hands-on activities in the use of tools and the operation of equipment found in manufacturing. Students will work in the areas of blueprint reading, computer numerical control (CNC) machining, general machining and maintenance, computer-aided drafting (CAD), and related mathematics. This course is designed to meet competency-based standards set by the industry. Attitude and quality of workmanship is stressed. Career options include entry level machinist, computer-numerical control operator, numerical tool and process technician, manufacturing engineering technician, and manufacturing inspection technician.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Use written and oral communication skills needed for entry level employment in the manufacturing industry (Communication Fluency).
2. Summarize business practices, principles and application of associated technical skill in the machining industry (Specialized Knowledge).
3. Apply the necessary machining skill sets to perform specified manufacturing processes (Applied Learning).

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with

your advisor or academic department to determine which catalog year and program requirements you should follow.

- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(36 semester hours)

Code	Title	Semester Credit Hours
MAMT 101	Introduction to Manufacturing	2
MAMT 105	Print Reading and Sketching	2
MAMT 106	Geometric Tolerancing	2
MAMT 115	Introduction to Machine Shop	3
MAMT 120	Machine Technology I	4
MAMT 125	Machine Technology II	4
MAMT 230	Machine Technology III	4
MAMT 240	Job Shop Machining II	3
or MAMT 170	Practical Applications	
MAMT 148	CNC Applications	3
MAMT 251	CNC Machining I	3
MAMT 255	CNC Machining II	3
MATH 107	Career Math	3
Total Semester Credit Hours		**36**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
MAMT 101	Introduction to Manufacturing	2
MAMT 105	Print Reading and Sketching	2
MAMT 115	Introduction to Machine Shop	3
MAMT 120	Machine Technology I	4
MAMT 148	CNC Applications	3
MATH 107	Career Math	3
	Semester Credit Hours	**17**
Spring Semester		
MAMT 125	Machine Technology II	4
MAMT 230	Machine Technology III	4
MAMT 251	CNC Machining I	3
MAMT 255	CNC Machining II	3
MAMT 240 or MAMT 170	Job Shop Machining II or Practical Applications	3
MAMT 106	Geometric Tolerancing	2
	Semester Credit Hours	**19**
	Total Semester Credit Hours	**36**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Manual Machinist, Manufacturing Technology (Technical Certificate)

Award: Technical Certificate
Program of Study: Manufacturing Technology
Specialization: Manual Machinist
Program Code: 1128

CMU Tech's Manual Machinist program provides an intensive overview of skills necessary to perform manual machining. Students learn how to apply industrial knowledge and skills work holding, math, inspection, safety, machining, materials, quality, grinding, and assembly to work as a Manual Machinist.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Distinguish between tolerances and dimensions, as used in the machining industry. (Quantitative Literacy)

2. Apply the necessary Manual machining skill sets to perform specified manufacturing processes.(Applied Learning)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than “C” will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

Code	Title	Semester Credit Hours
MAMT 120	Machine Technology I	4
MAMT 125	Machine Technology II	4
MAMT 230	Machine Technology III	4
Total Semester Credit Hours		**12**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
MAMT 120	Machine Technology I [1]	4
MAMT 125	Machine Technology II [1]	4
MAMT 230	Machine Technology III [1]	4
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**12**

[1] MAMT 120 is completed in the first mod, and MAMT 125 and MAMT 230 are completed in the second mod.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student’s responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar’s Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar’s Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the “Intent to Graduate” form to the Registrar’s Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's “Intent to Graduate” does not automatically move to a later graduation date.

Mechanical Drafting, Manufacturing Technology (Technical Certificate)

Award: Technical Certificate
Program of Study: Manufacturing Technology
Specialization: Mechanical Drafting
Program Code: 1177

In this Technical Certificate, students learn drafting concepts and the processes of orthographic projection, pictorial drawing, dimensioning, and geometric construction by hand and with CAD software and equipment. Students will also gain fundamental knowledge of mechanical drafting. The majority of a student's work will be completed on the computer. A project in the area of the student's interest will tie the course to real world concepts.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Apply principles of grammar and vocabulary in the documentation required to perform the duties of a Mechanical Drafting technician and interviewing clients and communicating with constituents. (Communication Fluency)
2. Apply mathematical concepts and practices that are required to properly perform calculation for design. (Quantitative Fluency)
3. Interview clients, to help decide on materials, size and design, based on client's needs and students' knowledge of the industry. (Critical Thinking)
4. Demonstrate mastery of terminology in the Mechanical drafting industry. (Specialized Knowledge)
5. Demonstrate mastery of Specific Mechanical Design CAD software and generate substantially error free designs. (Specialized Knowledge)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than “C” will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

Code	Title	Semester Credit Hours
CADT 108	CAD - Mechanical	3
CADT 109	CAD-Mechanical Engineering	3
MAMT 105	Print Reading and Sketching	2
MAMT 106	Geometric Tolerancing	2
Total Semester Credit Hours		**10**

Suggested Course Plan

First Year		
Fall Semester		
		Semester Credit Hours
CADT 108	CAD - Mechanical	3
CADT 109	CAD-Mechanical Engineering	3
MAMT 105	Print Reading and Sketching	2
MAMT 106	Geometric Tolerancing	2
	Semester Credit Hours	**10**
	Total Semester Credit Hours	**10**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the

student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Welding Technology, Manufacturing Technology (Technical Certificate)

Award: Technical Certificate
Program of Study: Manufacturing Technology
Specialization: Welding Technology
Program Code: 1338

This Welding Technology program is designed to provide training and opportunity to become proficient at SMAW, GMAW, GTAW, FCAW, OAC, PAC, blueprint reading, fabrication, layout, mathematics, and safety. This program offers classroom lecture and related lab work. Students study welding, cutting, layout, fabrication and technical math. Safety, attitude and quality of workmanship are stressed throughout this course. The welding certificate prepares students for entry level placement in a wide range of jobs in the welding industry and is designed to meet competency based standards set by the American Welding Society. This program prepares students to become AWS certified welders in the welding industry.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Apply business communication using listening, verbal and written forms that are needed for entry level employment in the industry. (Communication Fluency)
2. Research, evaluate, synthesize and apply information/data relevant to the industry. (Critical Thinking)
3. Demonstrate knowledge of welding terminology, symbols, business practices, principles and application of associated technical skills (Specialized Knowledge/Applied Learning)
4. Perform the necessary applied welding skill sets to fulfill the needs of entry level employment. (Applied Learning)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(32 semester hours, a grade of "C" or higher is required for all WELD courses.)

- Students in Welding may be required to purchase approximately $500.00 in tools and personal safety welding equipment. This does not include required textbooks. These costs may vary with student need and brand or quality of tools or equipment purchased. All safety glasses must meet the minimum industry safety standard of Z-87 with side shields.

Code	Title	Semester Credit Hours
MAMT 105	Print Reading and Sketching	2
WELD 110	Shielded Metal Arc Welding	4
WELD 117	Oxy-Fuel and Plasma Arc Cutting	2
MATH 107	Career Math	3
WELD 201	Gas Metal Arc Welding	4
ELCE 124	Electrical Safety	1
WELD 133	Fabrication & Blueprints for Welders	4
WELD 230	Gas Tungsten Arc Welding	4
WELD 203	Flux Cored Arc Welding	4
WELD 111	Shielded Metal Arc Welding 2	4
Total Semester Credit Hours		**32**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
MAMT 105	Print Reading and Sketching	2
ELCE 124	Electrical Safety	1
WELD 110	Shielded Metal Arc Welding	4
WELD 117	Oxy-Fuel and Plasma Arc Cutting	2
MATH 107	Career Math	3
WELD 201	Gas Metal Arc Welding	4
	Semester Credit Hours	**16**
Spring Semester		
WELD 133	Fabrication & Blueprints for Welders	4
WELD 203	Flux Cored Arc Welding	4
WELD 111	Shielded Metal Arc Welding 2	4
WELD 230	Gas Tungsten Arc Welding	4
	Semester Credit Hours	**16**
	Total Semester Credit Hours	**32**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Mass Communication

Program Description

The Mass Communication program provides students with a concentration in media strategies and applications. A series of core classes offer students the opportunity to develop the knowledge, theory, and skills that prepare them for the ever-changing, broad field of mass communication. Students have the opportunity to take a wide range of elective courses that focus on audio and video production, journalism, public relations, and emerging content creation, such as managing social media platforms. In addition, all students work with at least one of the campus student media organizations or clubs (CMU-TV, KMSA radio, *The Criterion* newspaper, *Horizon Magazine*, and the Photo Club) as well as an outside media business or a client for an internship to gain real-world experience.

The Mass Communication program prepares graduates to enter graduate school and/or find successful careers across the country in traditional mass media (magazines, newspapers, radio, TV stations, public relations, and advertising), as well as in non-traditional settings such as online media, non-profits and government agencies.

Contact Information

Department of Languages, Literature, and Mass Communication
Escalante Hall 237
970.248.1687

Programs of Study Certificates

- Arts Media Communication (Professional Certificate) (p. 584)

Bachelors/Minors

- Mass Communication (Minor) (p. 583)
- Media Strategies and Applications, Mass Communication (BA) (p. 580)

Media Strategies and Applications, Mass Communication (BA)

Degree: Bachelor of Arts
Major: Mass Communication
Concentration: Media Strategies and Applications
Program Code: 3256

The Bachelor of Arts degree in Mass Communication is a concentration in Media Strategies and Applications. The overriding goal of the program is to offer students opportunities to develop the knowledge, theory and skills that will assist them in securing careers in the ever-changing fields of mass communication.

Graduates of Colorado Mesa University's Mass Communication program establish successful careers in media (magazines, newspapers, radio, television, public relations, advertising, and Internet-based media), as well as in other venues such as non-profit organizations, and government agencies.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Apply specific paradigms for critical thinking to mass communication. (Critical Thinking)
2. Write compelling content that demonstrates proper grammar, well-organized facts, and story-telling techniques for a variety of media. (Communication Fluency)
3. Evaluate mass communication theories and assess their use. (Specialized Knowledge)
4. Demonstrate proper application of industry tools and techniques common to mass communication. (Applied Learning)
5. Reflect on and respond to ethical, social, civic, and/or environmental challenges in mass media at local, national, and/or global levels (Personal and Social Responsibility)
6. Find, evaluate, interpret, and apply information and data from relevant media artifacts appropriately and effectively to specific purposes (information literacy, Quantitative Literacy).

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.

- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [2]		
MATH 110	Mathematical Investigations-GTMA1 (or higher)	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [3]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

[1] Must receive a grade of "B" or better and must be completed by the time the student has 60 semester hours.
[2] Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.
[3] One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(9 semester hours, must pass all courses with a grade of "C" or higher.)

Code	Title	Semester Credit Hours
MASS 110	Mass Media: Impact and History-GTAH2	3
Select two consecutive classes in the same foreign language		6
Total Semester Credit Hours		**9**

Program Specific Degree Requirements

(44 semester hours, must pass all courses with a grade of "C" or higher and maintain a 2.5 cumulative GPA or higher for coursework in this area. To continue in the program and eventually graduate as Mass Communication – Media Strategies and Applications majors, students must earn a minimum grade of "C" in the major requirements within no more than three attempts.)

- In an effort to meet industry standards, Macintosh computers are used in all computer-based Mass Communication courses. Majors are strongly advised to consider purchasing a Macintosh and related print and web publication software for personal use.

Code	Title	Semester Credit Hours
Mass Communication Core		
MASS 140	Media Theory Introduction	3
MASS 144	Multimedia Storytelling	3
MASS 213	Introduction to Media Writing and Reporting	3
MASS 310	Media Law and Ethics	3
MASS 397	Practicum	1
MASS 494	Seminar: Advanced Theory and Research	3
MASS 493	Senior Project Portfolio	1
MASS 499	Internship [1]	3
Strategy Courses		
Select 12 credit hours from the following:		12
MASS 251	Mass Media: Advertising and Promotions	
MASS 313	Broadcast Journalism Reporting	
MASS 315A	Specialized Writing for Media: Science	
MASS 315B	Specialized Writing for Media: Sports	
MASS 315C	Specialized Writing for Media: Health	
MASS 315D	Specialized Writing for Media: Crime	
MASS 315E	Specialized Writing for Media: Arts Journalism	
MASS 317	Writing Opinion for Impact	
MASS 350	Public Relations Concepts	
MASS 357	Documentary and News Producing	
MASS 415	Advanced Media Writing and Reporting	

MASS 417	Writing for Public Relations and Advertising	
MASS 450	Public Relations Campaigns	
Application Courses		
Select 12 credit hours from the following:		12
MASS 261	Audio Announcing and Production	
MASS 271	Video Production	
MASS 342	Photojournalism I	
MASS 352	Print Design and Production for Editors	
MASS 357	Documentary and News Producing	
MASS 372	TV Studio Production	
MASS 441	Emerging Media	
MASS 442	Photojournalism II	
MASS 452	Designing for Brand and Message	
MASS 471	Advanced Video Production	
Total Semester Credit Hours		**44**

[1] Student may take more than 3 hours of Internship. Any hours beyond 3 may be included in the General Elective category.

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours, including 40 upper division hours. 30 semester hours, including 5-14 semester hours of upper division may be needed.

Code	Title	Semester Credit Hours
Select electives		30
Total Semester Credit Hours		**30**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
MATH 110	Mathematical Investigations-GTMA1	3
MASS 110	Mass Media: Impact and History-GTAH2	3
KINE 100	Health and Wellness	1
Essential Learning - Humanities		3
Essential Learning - Social and Behavioral Science		3
	Semester Credit Hours	**16**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
MASS 140	Media Theory Introduction	3
MASS 144	Multimedia Storytelling	3
Essential Learning - Natural Science		3
Essential Learning - Social and Behavioral Science		3
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
MASS 213	Introduction to Media Writing and Reporting	3
Essential Learning - Fine Arts		3
Essential Learning - History		3
Foundation Course - Foreign Language		3
Essential Learning - Natural Science with Lab		4
	Semester Credit Hours	**16**
Spring Semester		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Foundation Course - Foreign Language		3
Strategy or Application courses (2 courses)		6
KINA Activity		1
	Semester Credit Hours	**14**
Third Year		
Fall Semester		
MASS 310	Media Law and Ethics	3
MASS 397	Practicum	1
Strategy or Application (2 courses)		6
Electives (2 courses)		6
	Semester Credit Hours	**16**
Spring Semester		
Strategy or Application (2 courses)		6
Electives (3 courses)		9
	Semester Credit Hours	**15**
Fourth Year		
Fall Semester		
Strategy or Application (2 courses)		6
Electives (3 courses)		9
	Semester Credit Hours	**15**
Spring Semester		
MASS 494	Seminar: Advanced Theory and Research	3
MASS 493	Senior Project Portfolio	1
MASS 499	Internship	3
Electives (2 courses)		6
	Semester Credit Hours	**13**
	Total Semester Credit Hours	**120**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.

- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Mass Communication (Minor)

Minor: Mass Communication
Program Code: M250

The Bachelor of Arts degree in Mass Communication is a concentration in Media Strategies and Applications. The overriding goal of the program is to offer students opportunities to develop the knowledge, theory and skills that will assist them in securing careers in the ever-changing fields of mass communication.

Graduates of Colorado Mesa University's Mass Communication program establish successful careers in media (magazines, newspapers, radio, television, public relations, advertising, and Internet-based media), as well as in other venues such as non-profit organizations, and government agencies.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(19 semester hours, must maintain a 2.50 cumulative GPA or higher.)

Code	Title	Semester Credit Hours
MASS 110	Mass Media: Impact and History-GTAH2	3
MASS 140	Media Theory Introduction	3
MASS 144	Multimedia Storytelling	3
MASS 213	Introduction to Media Writing and Reporting	3
MASS 397	Practicum	1
Select six hours of Upper Division Mass Communication (MASS) electives [1]		6
Total Semester Credit Hours		**19**

[1] See the current catalog for a full list of courses. May also use ENGL 392.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the "Intent to Graduate" form.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Arts Media Communication (Professional Certificate)

Overview

Award: Professional Certificate
Program of Study: Arts Media Communication
Program Code: 1704

The Arts Media Communication certificate offers students a valuable and focused skill set that combines arts critiques, media writing, and common technology used in the field. Many modern occupations require knowledge of producing media content across different platforms and/or working with the media.

In the Arts Media Communication certificate, students will craft a unique voicing for their media content. They will learn to create dynamic content for many different types of audiences, and they will gain real world experience with interviewing and interacting with varied arts communities both on campus and off campus.

Students will choose from a collection of art courses with the option to focus on their desired forms and mediums (music, dance, film, etc.), and learn about those histories. Then they will learn how to write for the media, with a focus in learning to write about (and for) the arts. Finally, students will gain real-world experience by working with a publication on campus, as well as with an arts focused off-campus client through an internship.

All CMU certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, critical thinking, and personal and social responsibility. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Place a work of artistic expression in a useful historical context. (Specialized Knowledge)
2. Navigate ethical dilemmas within the field of Arts Journalism. (Ethical Reasoning)
3. Interpret and critique aesthetic expressions. (Critical Thinking)
4. Create and edit a range of media content using industry standards for multiple platforms. (Applied Knowledge).

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU Professional Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Primarily 300-400 level courses.
- At least fifty percent of the credit hours must be taken at CMU.
- 2.00 cumulative GPA or higher in all CMU coursework.
- A grade lower than "C" in the program of study will not be counted toward meeting the certificate's requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(20-22 semester hours)

Code	Title	Semester Credit Hours
MASS 310	Media Law and Ethics [1]	3
MASS 315E	Specialized Writing for Media: Arts Journalism [1]	3
MASS 415	Advanced Media Writing and Reporting [1]	3
MASS 497	Practicum [2]	1
MASS 499	Internship [3]	1-3
Select nine hours from the following:		9
ARTE 115	Art Appreciation-GTAH1	
DANC 115	Dance Appreciation-GTAH1	
THEA 141	Theatre Appreciation-GTAH1	
ENGL 150	Introduction to Literature-GTAH2	
MUSA 220	Music Appreciation-GTAH1	
MASS 317	Writing Opinion for Impact [1]	
ENGL 390	Introduction to Film Studies [4]	
ENGL 394	Technical and Professional Writing Topics [4]	
ENGL 421	Introduction to Literary Theory and Criticism [5]	
Total Semester Credit Hours		**20-22**

1. These courses require a prerequisite of MASS 213, which requires completion of MASS 140.
2. These courses require a prerequisite of MASS 140 and MASS 144.
3. These courses require a prerequisite of MASS 213 and MASS 310.
4. These courses require a prerequisite of ENGL 111 and ENGL 112.
5. These courses require a prerequisite of ENGL 210, which has a prerequisite of ENGL 111.

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
MASS 310	Media Law and Ethics	3
MASS 315E	Specialized Writing for Media: Arts Journalism	3
Elective		3
	Semester Credit Hours	**9**
Spring Semester		
MASS 415	Advanced Media Writing and Reporting	3
Elective		3
	Semester Credit Hours	**6**
Second Year		
Fall Semester		
MASS 397	Practicum	1
Elective		3
	Semester Credit Hours	**4**
Spring Semester		
MASS 499	Internship	1-3
	Semester Credit Hours	**1-3**
	Total Semester Credit Hours	**20-22**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Mathematics

Program Description

Bachelor of Science

The Bachelor of Science degree in Mathematics offers five different concentrations described below. Each concentration includes the same core courses in mathematics, statistics, and computer science. This core, beginning with MATH 150: Topics and Careers in Mathematics and culminating with MATH 492: Senior Capstone, is designed to build a common experience of constructing problem-solving strategies and communicating mathematics throughout the curriculum. Additionally, each concentration has specific courses to explore related topics more deeply.

Pursuing a concentration in theoretical Mathematics (p. 592), students develop powerful problem-solving, logical, and critical thinking skills. By completing the required coursework, students gain an appreciation of the nature of proof, a broad general understanding of mathematics, and a deep comprehension of at least one area of mathematics. Math majors also develop independent learning skills and oral and written mathematical communication skills. Mathematics majors get jobs in a wide variety of areas. CMU graduates have worked for local businesses, have run their own businesses, and have worked for scientific companies. Other graduates have continued their educations by attending graduate school (in mathematics, computer science, and engineering), law school, medical school, and veterinary school.

Students who pursue a concentration in Applied Mathematics (p. 589) will develop powerful problem-solving, logical, and critical thinking skills. Students will use methods of applied mathematics from areas including modeling, linear algebra, ordinary and partial differential equations, numerical methods, computer programming, and statistics to model and solve applied problems. Students will also gain an understanding of the nature of proof and will complete a senior capstone project that includes developing research skills, writing skills, and presentation skills. Applied mathematics graduates can choose to find work in a variety of areas within business, industry, and government or may choose to continue their educations by attending graduate school in areas such as applied mathematics, computer science, and engineering.

The concentration in Secondary Education (p. 595) will prepare students to teach in both middle schools and high schools. While completing this degree, students develop problem-solving and critical thinking skills and are introduced to the logical and historical development of mathematical ideas. Students also learn the professional skills in teaching methods and content necessary for secondary mathematics teachers. Nationally recommended curriculum guidelines are followed in order to ensure that graduates have the mathematical content and conceptual understanding necessary for all high school mathematics courses. Graduates from this program are in demand both locally and statewide with the scarcity of mathematics teachers.

With a concentration in Statistics (p. 599), students develop problem-solving, logical, and critical thinking skills. While completing the required coursework, students gain an appreciation of the nature of proof, a general understanding of mathematics, and a knowledge of statistical reasoning, necessary assumptions, and the correct use of statistical analysis procedures. Students also develop statistical software skills and oral and written mathematical communication skills. The statistics concentration in mathematics prepares students for graduate work in statistics or to enter the job force. With some additional job-specific training, students entering the job market could function as applied statisticians working in areas such as actuarial science, wildlife management, marketing, quality control, and epidemiology to name a few.

With a concentration in Actuarial Science (p. 587), students develop problem-solving, logical, and critical thinking skills. While completing this degree, students develop a general understanding of mathematics and a knowledge of statistical reasoning including the use of statistical software to aid in problem-solving and investigation, applying appropriate statistical procedures, and drawing valid statistical conclusions. Coursework in economics and finance also helps prepare students for graduate work in actuarial science or to enter the job force. After graduation and upon the successful completion of the Society of Actuaries Probability Exam and Financial Mathematics Exam, individuals entering the job market could function as actuaries in the insurance field or as applied statisticians working in areas such as risk management and marketing.

Minors

A Minor in Mathematics (p. 604) is a natural enhancement to many majors outside mathematics where an understanding of mathematics is needed (e.g., physics, computer science, chemistry, biology, geology). A minor in mathematics enables non-mathematics majors to complete a focused course of study in mathematics on a smaller scale.

A Minor in Statistics (p. 605) is a natural enhancement to many majors outside statistics where an understanding of statistical analysis of data is needed (e.g., biology, business, psychology, sociology, history, human performance and wellness, political science). A minor in statistics enables students to complete a focused course of study in statistics on a smaller scale.

Associate of Science

An Associate of Science in Mathematics (p. 601) provides students with a reasonable exposure to foundational college-level mathematics. This degree program includes the Colorado Statewide General Education Core and meets the lower division general education requirements at most public institutions in Colorado. By completing this degree, students should be able to matriculate into a baccalaureate degree in mathematics with only 60 additional hours of coursework.

Graduate Certificate

The Graduate Certificate in Applied Mathematics (p. 90) is intended to provide licensed secondary mathematics teachers the credentials required by the Higher Learning Commission to teach concurrent enrollment classes and to enable other professionals to enhance their knowledge of applied mathematics. For more complete program information: Applied Mathematics (Graduate Certificate) (p. 391). [*This program is inactive and is not currently accepting applicants.*]

Contact Information

Department of Mathematics and Statistics
Wubben Science 132
970.248.1407

Programs of Study

Associates

- Mathematics, Liberal Arts (AS) (p. 601)

Bachelors/Minors

- Actuarial Science, Mathematics (BS) (p. 587)
- Applied Mathematics, Mathematics (BS) (p. 589)
- Education: Secondary Education, Mathematics (BS) (p. 595)
- Mathematics (BS) (p. 592)
- Mathematics (Minor) (p. 604)
- Statistics (Minor) (p. 605)
- Statistics, Mathematics (BS) (p. 599)

Graduate

- Applied Mathematics (Graduate Certificate) (p. 373) [*This program is inactive and is not currently accepting applicants.*]

Actuarial Science, Mathematics (BS)

Degree: Bachelor of Science
Major: Mathematics
Concentration: Actuarial Science
Program Code: 3438

The actuarial science concentration in mathematics prepares students for graduate work in actuarial science or to enter the job force. With some additional job-specific training, students entering the job market could function as actuaries in the insurance field or as applied statisticians working in areas such as risk management and marketing.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Construct multi-step problem-solving strategies and communicate solutions effectively in written form. (Specialized Knowledge, Quantitative Fluency)
2. Use statistical software (including calculators) to aid in problem-solving and investigation, and recognize its limitations. (Applied Learning, Critical Thinking)
3. Apply appropriate statistical procedures and defend chosen assumptions. (Applied Learning, Personal and Social Responsibility)
4. Draw statistical conclusions and evaluate the validity of others' reported conclusions. (Critical Thinking, Information Literacy)
5. Investigate, discuss, and respond to ethical and social challenges in a mathematical context. (Communication Fluency, Personal and Social Responsibility, Information Literacy)
6. Communicate technical analyses to non-specialists. (Communication Fluency)
7. Apply concepts of finance, economics, and risk management in statistical decision making. (Specialized Knowledge, Applied Learning)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 151	Calculus I-GTMA1 [2]	3

History	
Select one History course	3
Humanities	
Select one Humanities course	3
Social and Behavioral Sciences	
Select one Social and Behavioral Sciences course	3
Select one Social and Behavioral Sciences course	3
Fine Arts	
Select one Fine Arts course	3
Natural Sciences [3]	
Select one Natural Sciences course with a lab	4
Select one Natural Sciences course	3
Total Semester Credit Hours	**31**

1 Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.
2 This is a 5 credit course. 3 credits apply to the Essential Learning requirements and 2 credits apply to electives.
3 One course must include a lab.

Other Lower Division Requirements

(6 semester hours)

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
KINA 1XX	Activity Course	1
Essential Learning Capstone [1]		
ESSL 200	Essential Speech	1
ESSL 290	Maverick Milestone	3
Total Semester Credit Hours		**6**

1 Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(11 semester hours)

Code	Title	Semester Credit Hours
MATH 152	Calculus II	5
CISB 241	Introduction to Business Analysis	3
or STAT 241	Introduction to Business Analysis	
ACCT 201	Principles of Financial Accounting	3
Total Semester Credit Hours		**11**

Program Specific Degree Requirements

(60-61 semester hours, must maintain a 2.50 cumulative GPA or higher in coursework in this area. At most one “D” may be used in completing major requirements.)

Code	Title	Semester Credit Hours
Core Courses		
MATH 150	Topics and Careers in Mathematics	1
MATH 225	Computational Linear Algebra	3
MATH 253	Calculus III	4
MATH 492	Senior Capstone	3
Select four hours from the following:		4
CSCI 110 & 110L	Beginning Programming and Beginning Programming Laboratory	
CSCI 111	CS1: Foundations of Computer Science	
CSCI 130	Introduction to Engineering Computer Science	
Required Concentration Courses		
CISB 341	Quantitative Decision Making	3
CSCI 260	Introduction to Database	3
ECON 201	Principles of Macroeconomics-GTSS1	3
ECON 415	Econometrics	3
FINA 301	Managerial Finance	3
FINA 310	Risk Management	3
FINA 320	Fundamentals of Investments	3
STAT 301	Computational Statistics	3
STAT 312	Correlation and Regression	3
STAT 350	Mathematical Statistics I	3
MATH 427	Financial Mathematics	3
Concentration Electives		
Select one of the following:		3-4
MATH 240	Introduction to Advanced Mathematics	
MATH 369	Discrete Structures I	
Select three of the following:		9
STAT 313	Sampling Techniques	
STAT 351	Mathematical Statistics II	
STAT 425	Design and Analysis of Experiments	
STAT 430	Categorical Data Analysis	
Total Semester Credit Hours		**60-61**

General Electives

All college level courses appearing on your final transcript, not listed above, that will bring your total semester hours to 120 hours, including 40 upper-division credit hours. 11-12 semester hours; 1 hour of upper division may be needed.

Code	Title	Semester Credit Hours
MATH 151	Calculus I-GTMA1	2
Select additional electives		9-10
Total Semester Credit Hours		**11-12**

Suggested Course Plan

While the sequencing below culminates in a total of 119-121 semester credit hours, students must complete a minimum of 120 semester credit hours as required for completion of this degree, including satisfactory

completion of all required courses. Plan to complete requirements with varying hour options accordingly.

First Year		
Fall Semester		**Semester Credit Hours**
Select four credit hours from the following:		4
CSCI 110 & 110L	Beginning Programming and Beginning Programming Laboratory	
CSCI 111	CS1: Foundations of Computer Science	
CSCI 130	Introduction to Engineering Computer Science	
ENGL 111	English Composition I-GTCO1	3
Essential Learning - Social and Behavioral Sciences		3
MATH 151	Calculus I-GTMA1	5
	Semester Credit Hours	**15**
Spring Semester		
ECON 201	Principles of Macroeconomics-GTSS1	3
ENGL 112	English Composition II-GTCO2	3
Essential Learning - History		3
KINA Activity		1
MATH 150	Topics and Careers in Mathematics	1
MATH 152	Calculus II	5
	Semester Credit Hours	**16**
Second Year		
Fall Semester		
CISB 241 or STAT 241	Introduction to Business Analysis or Introduction to Business Analysis	3
Essential Learning - Humanities		3
Essential Learning - Fine Arts		3
Essential Learning - Natural Sciences		3
MATH 253	Calculus III	4
	Semester Credit Hours	**16**
Spring Semester		
ACCT 201	Principles of Financial Accounting	3
CSCI 260	Introduction to Database	3
Essential Learning - Natural Science with Lab		4
KINE 100	Health and Wellness	1
MATH 225	Computational Linear Algebra	3
	Semester Credit Hours	**14**
Third Year		
Fall Semester		
CISB 341	Quantitative Decision Making	3
FINA 310	Risk Management	3
STAT 301	Computational Statistics	3
STAT 350	Mathematical Statistics I	3
ESSL 200	Essential Speech	1
ESSL 290	Maverick Milestone	3
	Semester Credit Hours	**16**
Spring Semester		
FINA 301	Managerial Finance	3
MATH 240 or MATH 369	Introduction to Advanced Mathematics or Discrete Structures I	3-4
Essential Learning - Social and Behavioral Sciences		3
STAT 312	Correlation and Regression	3
MATH 427	Financial Mathematics	3
	Semester Credit Hours	**15-16**
Fourth Year		
Fall Semester		
FINA 320	Fundamentals of Investments	3
MATH 492	Senior Capstone	3
Statistics Concentration Elective		3
General Electives		6
	Semester Credit Hours	**15**
Spring Semester		
ECON 415	Econometrics	3
Statistics Concentration Electives		6
General Electives		3-4
	Semester Credit Hours	**12-13**
	Total Semester Credit Hours	**119-121**

Advising and Graduation

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Applied Mathematics, Mathematics (BS)

Degree: Bachelor of Science
Major: Mathematics
Concentration: Applied Mathematics
Program Code: 3437

Applied mathematicians use mathematics to solve problems. This program provides mathematics coursework commonly found in applied math settings. Applied mathematics graduates can choose to find work in a variety of areas, or may choose to continue their educations by attending graduate school in areas such as applied mathematics, computer science and engineering.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource and the Society for Industrial and Applied Mathematics career information web page.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Use methods of applied mathematics to model and solve applied problems (Specialized Knowledge, Applied Learning, Quantitative Fluency)
2. Use mathematical software (including calculators) to aid in problem-solving and investigation, and recognize its limitations. (Applied Learning)
3. Prove propositions deductively from definitions and theorems, using clear and precise prose. (Critical Thinking)
4. Investigate, discuss, and respond to ethical and social challenges in a mathematical context. (Communication Fluency, Personal and Social Responsibility, Information Literacy)
5. Research an advanced topic in applied mathematics and deliver written and oral presentations. (Specialized Knowledge, Communication Fluency, Information Literacy)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 151	Calculus I-GTMA1 [2]	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [3]		
Select one Natural Sciences course with a lab		4
Select one Natural Sciences course		3
Total Semester Credit Hours		**31**

1. Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.
2. This is a 5 credit course. 3 credits apply to the Essential Learning requirements and 2 credits apply to electives.
3. One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		

ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

Code	Title	Semester Credit Hours
MATH 152	Calculus II	5
STAT 200	Probability and Statistics-GTMA1	3
Total Semester Credit Hours		**8**

Program Specific Degree Requirements

(49-51 semester hours, must maintain a 2.50 cumulative GPA or higher in coursework in this area. At most one "D" may be used in completing major requirements.)

Code	Title	Semester Credit Hours
Core Courses		
MATH 150	Topics and Careers in Mathematics	1
MATH 225	Computational Linear Algebra	3
MATH 253	Calculus III	4
MATH 492	Senior Capstone	3
Select one of the following:		4
CSCI 110 & 110L	Beginning Programming and Beginning Programming Laboratory	
CSCI 111	CS1: Foundations of Computer Science	
CSCI 130	Introduction to Engineering Computer Science	
Concentration Courses		
MATH 240	Introduction to Advanced Mathematics	4
MATH 260	Differential Equations	3
MATH 352	Advanced Calculus [1]	3
or MATH 325	Linear Algebra	
MATH 360	Methods of Applied Mathematics	3
MATH 366	Methods of Applied Mathematics II	3
MATH 466	Methods of Applied Mathematics III	3
STAT 301	Computational Statistics	3
CSCI 260	Introduction to Database	3-4
or CSCI 112	CS2: Data Structures	
Concentration Electives		
Select three courses from the following list, at least two must have a MATH prefix.		9-10
MATH 325	Linear Algebra [1]	
or MATH 352	Advanced Calculus	
MATH 361	Numerical Analysis	
MATH 362	Fourier Analysis	
MATH 365	Mathematical Modeling	
MATH 369	Discrete Structures I	
MATH 420	Introduction to Topology	
MATH 427	Financial Mathematics	
MATH 450	Complex Variables	
MATH 452	Introduction to Real Analysis I	
MATH 460	Advanced Linear Algebra	
MATH 490	Abstract Algebra I [2]	
STAT 312	Correlation and Regression	
STAT 350	Mathematical Statistics I	
STAT 430	Categorical Data Analysis	
CSCI 365	Data Mining	
PHYS 471	Computational Physics I	
Total Semester Credit Hours		**49-51**

[1] The same course cannot be counted in both the concentration requirements and the concentration electives.

[2] Has a prerequisite of MATH 310: Number Theory.

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours, including 40 hours of upper division hours. 24-26 semester hours, including 12-13 hours of upper division may be needed.

Code	Title	Semester Credit Hours
MATH 151	Calculus I-GTMA1	2
Select additional electives [1]		22-24
Total Semester Credit Hours		**24-26**

[1] Students should consider earning a minor or professional certificate to help fulfill the 12-13 upper division credits required.

Suggested Course Plan

While the sequencing below culminates in a total of 118-122 semester credit hours, students must complete a minimum of 120 semester credit hours as required for completion of this degree, including satisfactory completion of all required courses. Plan to complete requirements with varying hour options accordingly.

First Year		
Fall Semester		**Semester Credit Hours**
MATH 151	Calculus I-GTMA1	5
ENGL 111	English Composition I-GTCO1	3
KINA Activity		1
KINE 100	Health and Wellness	1
Essential Learning - Natural Science		3
Essential Learning - Social and Behavioral Sciences		3
	Semester Credit Hours	**16**
Spring Semester		
MATH 152	Calculus II	5
ENGL 112	English Composition II-GTCO2	3
MATH 150	Topics and Careers in Mathematics	1
Select one of the following:		4
CSCI 111	CS1: Foundations of Computer Science	

CSCI 110 & 110L	Beginning Programming and Beginning Programming Laboratory	
CSCI 130	Introduction to Engineering Computer Science	
Essential Learning - Social and Behavioral Sciences		3
	Semester Credit Hours	**16**
Second Year		
Fall Semester		
Essential Learning - Fine Arts		3
Essential Learning - History		3
MATH 240	Introduction to Advanced Mathematics	4
MATH 253	Calculus III	4
STAT 200	Probability and Statistics-GTMA1	3
	Semester Credit Hours	**17**
Spring Semester		
Essential Learning - Humanities		3
Essential Learning - Natural Science with Lab		4
MATH 225	Computational Linear Algebra	3
MATH 260	Differential Equations	3
CSCI 260 or CSCI 112	Introduction to Database or CS2: Data Structures	3-4
	Semester Credit Hours	**16-17**
Third Year		
Fall Semester		
ESSL 200	Essential Speech	1
ESSL 290	Maverick Milestone	3
STAT 301	Computational Statistics	3
MATH 360	Methods of Applied Mathematics	3
MATH 325	Linear Algebra (or Concentration Elective)	3-4
	Semester Credit Hours	**13-14**
Spring Semester		
MATH 366	Methods of Applied Mathematics II	3
MATH 352	Advanced Calculus (or Concentration Elective)	3
Concentration Elective		3
General Electives		6
	Semester Credit Hours	**15**
Fourth Year		
Fall Semester		
MATH 466	Methods of Applied Mathematics III	3
MATH 492	Senior Capstone	3
General Electives		6
	Semester Credit Hours	**12**
Spring Semester		
Concentration Elective		3
General Electives		10-12
	Semester Credit Hours	**13-15**
	Total Semester Credit Hours	**118-122**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Mathematics (BS)

Degree: Bachelor of Science
Major: Mathematics
Program Code: 3424

Mathematics majors get jobs in a wide variety of areas. Our graduates have worked for local businesses, have run their own businesses, and have worked for scientific companies. Other graduates have continued their educations by attending graduate school (in mathematics, computer science and engineering), law school, medical school, and veterinary school.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource and the Mathematics website.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Construct multi-step problem-solving strategies and communicate solutions effectively in written form. (Specialized Knowledge, Quantitative Fluency)
2. Use mathematical software (including calculators) to aid in problem-solving and investigation, and recognize its limitations. (Applied Learning)
3. Prove propositions deductively from definitions and theorems, using clear and precise prose. (Critical Thinking)
4. Investigate, discuss, and respond to ethical and social challenges in a mathematical context. (Communication Fluency, Personal and Social Responsibility, Information Literacy)

5. Research an advanced topic in mathematics and deliver written and oral presentations. (Specialized Knowledge, Communication Fluency, Information Literacy)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 151	Calculus I-GTMA1 [2]	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

1. Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.
2. This is a 5 credit course. 3 credits apply to the Essential Learning requirements and 2 credits apply to electives.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

1. Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

Code	Title	Semester Credit Hours
MATH 152	Calculus II	5
STAT 200	Probability and Statistics-GTMA1	3
Total Semester Credit Hours		**8**

Program Specific Degree Requirements

(43-46 semester hours, must maintain a 2.5 cumulative GPA in the coursework in this area. At most one "D" may be used in completing major requirements.)

Code	Title	Semester Credit Hours
Core Courses		
MATH 150	Topics and Careers in Mathematics	1
MATH 225	Computational Linear Algebra	3
MATH 253	Calculus III	4
MATH 492	Senior Capstone	3
Select one of the following:		4
CSCI 110 & 110L	Beginning Programming and Beginning Programming Laboratory	
CSCI 111	CS1: Foundations of Computer Science	
CSCI 130	Introduction to Engineering Computer Science	
Concentration Courses		
MATH 240	Introduction to Advanced Mathematics	4
MATH 310	Number Theory	3
MATH 352	Advanced Calculus	3
MATH 452	Introduction to Real Analysis I	3
MATH 490	Abstract Algebra I	3
Total Semester Credit Hours		**31**

Code	Title	Semester Credit Hours
Concentration Electives		
Select four of the following: [1]		12-15
MATH 260	Differential Equations	
or MATH 236	Differential Equations and Linear Algebra	
MATH 325	Linear Algebra	
MATH 360	Methods of Applied Mathematics	
MATH 361	Numerical Analysis	
MATH 362	Fourier Analysis	
MATH 365	Mathematical Modeling	
MATH 366	Methods of Applied Mathematics II	
MATH 369	Discrete Structures I	
MATH 386	Geometries	
MATH 396	Topics	
or MATH 496	Topics	
MATH 420	Introduction to Topology	
MATH 427	Financial Mathematics	
MATH 430	Mathematical Logic	
MATH 450	Complex Variables	
MATH 460	Advanced Linear Algebra	
MATH 453	Introduction to Real Analysis II	
MATH 466	Methods of Applied Mathematics III	
MATH 491	Abstract Algebra II	
STAT 301	Computational Statistics	
or STAT 350	Mathematical Statistics I	
Total Semester Credit Hours		**12-15**

[1] At least one selected course must be at the 400-level. At most one topics course, which must be 3 semester hours, can be used as one of these four courses.

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours. 29-32 semester hours; 10-15 hours of upper division may be needed.

Code	Title	Semester Credit Hours
MATH 151	Calculus I-GTMA1	2
Select additional electives		27-30
Total Semester Credit Hours		**29-32**

Suggested Course Plan

While the sequencing below culminates in a total of 117-123 semester credit hours, students must complete a minimum of 120 semester credit hours as required for completion of the degree, including satisfactory completion of all required courses. Plan to complete requirements with varying hour options accordingly.

First Year		
Fall Semester		**Semester Credit Hours**
MATH 151	Calculus I-GTMA1	5
ENGL 111	English Composition I-GTCO1	3
KINA Activity		1
KINE 100	Health and Wellness	1
Essential Learning - Natural Science		3
Essential Learning - Social and Behavioral Sciences		3
	Semester Credit Hours	**16**
Spring Semester		
MATH 152	Calculus II	5
MATH 150	Topics and Careers in Mathematics	1
ENGL 112	English Composition II-GTCO2	3
Select one of the following:		4
CSCI 110 & 110L	Beginning Programming and Beginning Programming Laboratory	
CSCI 111	CS1: Foundations of Computer Science	
CSCI 130	Introduction to Engineering Computer Science	
Essential Learning - Social and Behavioral Sciences		3
	Semester Credit Hours	**16**
Second Year		
Fall Semester		
MATH 240	Introduction to Advanced Mathematics	4
MATH 253	Calculus III	4
Essential Learning - Fine Arts		3
Essential Learning - History		3
STAT 200	Probability and Statistics-GTMA1	3
	Semester Credit Hours	**17**
Spring Semester		
MATH 225	Computational Linear Algebra	3
MATH 352	Advanced Calculus	3
Essential Learning - Natural Science with Lab		4

Essential Learning - Humanities		3
General Elective		3
	Semester Credit Hours	**16**
Third Year		
Fall Semester		
ESSL 200	Essential Speech	1
ESSL 290	Maverick Milestone	3
General Electives		6
MATH 310	Number Theory	3
MATH 452	Introduction to Real Analysis I	3
	Semester Credit Hours	**16**
Spring Semester		
MATH 490	Abstract Algebra I	3
Concentration Elective		3-4
General Electives		9
	Semester Credit Hours	**15-16**
Fourth Year		
Fall Semester		
Concentration Elective		3-4
Concentration Elective, 400-level		3
General Elective		3
MATH 492	Senior Capstone	3
	Semester Credit Hours	**12-13**
Spring Semester		
Concentration Elective		3-4
General Electives		6-9
	Semester Credit Hours	**9-13**
	Total Semester Credit Hours	**117-123**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Education: Secondary Education, Mathematics (BS)

Degree: Bachelor of Science
Major: Mathematics
Concentration: Secondary Education
Program Code: 3430

The major in mathematics with a concentration in secondary education will prepare students to teach in both middle schools and in high schools. While completing this degree, students develop problem-solving and critical thinking skills and are introduced to the logical and historical development of mathematical ideas. Students also learn the professional skills in teaching methods and content necessary for secondary mathematics teachers. Nationally recommended curriculum guidelines are followed in order to ensure that graduates have the mathematical content and conceptual understanding necessary for all high school mathematics courses. Graduates from this program are in great demand both locally and statewide with the scarcity of

Important information for this program:

- 2.80 cumulative GPA or higher required in all CMU coursework.
- 2.80 cumulative GPA or higher required in coursework toward the major content area.
- All EDUC prefix courses must be completed with a grade of "B" or better.
- Students must pass the PRAXIS II exam in the content area prior to beginning the internship. Also, all other coursework toward the degree must be successfully completed prior to the internship.
- A grade of "C" or better must be earned in all required courses, unless otherwise stated.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource and the Mathematics website.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Mathematics Outcome 1: Construct multi-step problem solving strategies and communicate solutions effectively in written form. (Specialized Knowledge, Quantitative Fluency)
2. Mathematics Outcome 2: Use mathematical software (including calculators) to aid in problem-solving and investigation, and recognize its limitations. (Applied Learning)
3. Mathematics Outcome 3: Prove propositions deductively from definitions and theorems in clear and precise prose. (Critical Thinking)

4. Mathematics Outcome 4: Investigate, discuss, and respond to ethical and social challenges in a mathematical context. (Communication Fluency, Personal and Social Responsibility, Information Literacy)
5. Mathematics Outcome 5: Demonstrate familiarity with the logical and historical development of mathematics and the implications of this development. (Specialized Knowledge)
6. Mathematics Outcome 6: Research a topic in mathematics education and deliver written and oral presentations. (Specialized Knowledge, Communication Fluency, Information Literacy)
7. Teacher Education Outcome 1: Demonstrate mastery of major area's content knowledge and pedagogical strategies through fieldwork with learners in professional settings. (Specialized Knowledge/Applied Learning)
8. Teacher Education Outcome 2: Design and establish a safe, inclusive, and respectful learning environment for a diverse population of students. (Specialized Knowledge/Applied Learning)
9. Teacher Education Outcome 3: Plan and deliver effective instruction to students, based on research-based pedagogical practices. (Communication Literacy/Information Literacy)
10. Teacher Education Outcome 4: Collect and analyze student assessment data and use results to inform planning and instruction. (Quantitative Fluency/Critical Thinking)
11. Teacher Education Outcome 5: Demonstrate professionalism through ethical conduct, reflection, and leadership. (Personal and Social Responsibility)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this degree:

- 2.80 cumulative GPA or higher required in all CMU coursework.

Essential Learning Requirements

(31 semester hours, must pass all courses with a grade of "C" or higher, unless otherwise noted.)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [2]		
MATH 119	Precalculus Mathematics-GTMA1 (or higher) [3, 4]	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
PSYC 233	Human Growth and Development-GTSS3 [5]	3
Select one Social and Behavioral Sciences course [6]		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [7]		
Select one Natural Science course with lab		4
Select one Natural Science course		3
Total Semester Credit Hours		**31**

1. Must receive a grade of "B" or better and must be completed by the time the student has 60 semester hours.
2. Must receive a grade of "C" or better, must be completed by the time the student has 60 semester hours.
3. MATH 119 is a 5 semester credit hour course. 3 credits apply to the Essential Learning requirements and 2 credits apply to elective credit.
4. May also satisfy this requirement by completing both MATH 119A: Algebra for Calculus (4 credits) and MATH 119B: Trigonometry for Calculus (3 credits).

[5] Must receive a grade of “B” or higher.
[6] GEOG 103 - World Regional Geography (3) recommended.
[7] One course must include a lab.

Other Lower Division Requirements

Must pass all courses with a grade of “C” or higher, unless otherwise noted.

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(8 semester hours, must pass all courses with a grade of “C” or higher.)

Code	Title	Semester Credit Hours
MATH 151	Calculus I-GTMA1	5
STAT 200	Probability and Statistics-GTMA1	3
Total Semester Credit Hours		**8**

Program Specific Degree Requirements

(43-44 semester hours, must pass all courses with a grade of “C” or higher, excepting one “D”, at most, which may be used in completing the major requirements. Must also maintain a 2.80 cumulative GPA or higher in coursework toward the major content area.)

- Students must take the PRAXIS II exam in the content area prior to beginning the internship. Also, all other coursework toward the degree must be successfully completed prior to the internship.

Code	Title	Semester Credit Hours
Core Courses		
MATH 150	Topics and Careers in Mathematics	1
MATH 152	Calculus II	5
MATH 225	Computational Linear Algebra	3
MATH 253	Calculus III	4
MATH 492	Senior Capstone	3
Select one of the following:		4
CSCI 111	CS1: Foundations of Computer Science	
CSCI 110 & 110L	Beginning Programming and Beginning Programming Laboratory	
CSCI 130	Introduction to Engineering Computer Science	
Concentration Courses		
MATH 240	Introduction to Advanced Mathematics	4
MATH 310	Number Theory	3
MATH 352	Advanced Calculus	3
MATH 369	Discrete Structures I	3
MATH 380	History of Mathematics	3
MATH 386	Geometries	4
Concentration Electives		
Select one of the following:		3-4
MATH 361	Numerical Analysis	
MATH 365	Mathematical Modeling	
MATH 450	Complex Variables	
MATH 490	Abstract Algebra I	
STAT 301	Computational Statistics	
Total Semester Credit Hours		**43-44**

Secondary Education Requirements

(29 semester hours, all EDUC prefix courses must be completed with a grade of “B” or better.)

Program Requirements:

ENGL 111, ENGL 112, PSYC 233, EDUC 115 and EDUC 215 (all with a grade of B or better) and formal acceptance to the Teacher Education Program.

Code	Title	Semester Credit Hours
EDUC 115	What It Means To Be An Educator (8 field experience hours)	1
EDUC 215	Teaching as a Profession (12 field experience hours)	1
EDUC 342	Pedagogy and Assessment: Secondary and K-12 (20 field experience hours)	3
EDUC 343	Teaching to Diversity (20 field experience hours)	3
EDUC 442	Integrating Literacy Across the Curriculum: Secondary and K-12 Art (60 field experience hours)	3
EDUC 475	Classroom Management for K-12 Educators	1
EDUC 480	Methods and Topics in Secondary Teaching	3
EDUC 480C	Methods of Teaching Secondary Mathematics [1]	2
EDUC 499G	Teaching Internship and Colloquia: Secondary (600 field experience hours)	12
Praxis II Exam Passed		
Total Semester Credit Hours		**29**

[1] This course is only offered in the fall semester. It may be taken with either the 300-level or 400-level EDUC courses but must be taken before the student teaching semester.

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours. 2-3 semester hours. Must earn a grade of "C" or higher.

Code	Title	Semester Credit Hours
MATH 119	Precalculus Mathematics-GTMA1	2
Select additional elective(s)		0-1
Total Semester Credit Hours		**2-3**

Suggested Course Plan

While the sequencing below culminates in a total of 119-121 semester credit hours, students must complete a minimum of 120 semester credit hours as required for completion of this degree, including satisfactory completion of all required courses. Plan to complete requirements with varying hour options accordingly.

First Year		
Fall Semester		**Semester Credit Hours**
MATH 119	Precalculus Mathematics-GTMA1	5
ENGL 111	English Composition I-GTCO1	3
Essential Learning - Humanities		3
Essential Learning - Fine Arts		3
KINA Activity		1
	Semester Credit Hours	**15**
Spring Semester		
MATH 151	Calculus I-GTMA1	5
MATH 150	Topics and Careers in Mathematics	1
ENGL 112	English Composition II-GTCO2	3
Essential Learning - Social/Behavioral Science		3
Essential Learning - History		3
KINE 100	Health and Wellness	1
	Semester Credit Hours	**16**
Second Year		
Fall Semester		
EDUC 115	What It Means To Be An Educator	1
Essential Learning - Natural Science		3
MATH 152	Calculus II	5
PSYC 233	Human Growth and Development-GTSS3	3
STAT 200	Probability and Statistics-GTMA1	3
	Semester Credit Hours	**15**
Spring Semester		
EDUC 215	Teaching as a Profession	1
Essential Learning - Natural Science with Lab		4
MATH 225	Computational Linear Algebra	3
MATH 253	Calculus III	4
MATH 240	Introduction to Advanced Mathematics	4
	Semester Credit Hours	**16**
Third Year		
Fall Semester		
Select one of the following:		4
CSCI 111	CS1: Foundations of Computer Science	
CSCI 110 & 110L	Beginning Programming and Beginning Programming Laboratory	
CSCI 130	Introduction to Engineering Computer Science	
MATH 310	Number Theory	3
MATH 369	Discrete Structures I (or Concentration Elective at 3-4 hours)	3-4
MATH 380	History of Mathematics	3
ESSL 200	Essential Speech	1
ESSL 290	Maverick Milestone	3
	Semester Credit Hours	**17-18**
Spring Semester		
EDUC 342	Pedagogy and Assessment: Secondary and K-12	3
EDUC 343	Teaching to Diversity	3
MATH 352	Advanced Calculus	3
MATH 369	Discrete Structures I (or Concentration Elective at 3-4 hours)	3-4
MATH 386	Geometries	4
	Semester Credit Hours	**16-17**
Fourth Year		
Fall Semester		
EDUC 442	Integrating Literacy Across the Curriculum: Secondary and K-12 Art	3
EDUC 475	Classroom Management for K-12 Educators	1
EDUC 480	Methods and Topics in Secondary Teaching	3
EDUC 480C	Methods of Teaching Secondary Mathematics	2
MATH 492	Senior Capstone	3
	Semester Credit Hours	**12**
Spring Semester		
EDUC 499G	Teaching Internship and Colloquia: Secondary	12
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**119-121**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

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Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

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If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Statistics, Mathematics (BS)

Degree: Bachelor of Science
Major: Mathematics
Concentration: Statistics
Program Code: 3434

The statistics concentration in mathematics prepares students for graduate work in statistics or to enter the job force. With some additional job-specific training, students entering the job market could function as applied statisticians working in areas such as actuarial science, wildlife management, marketing, quality control, and epidemiology to name a few.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Construct multi-step problem-solving strategies and communicate solutions effectively in written form. (Specialized Knowledge, Quantitative Fluency)
2. Use statistical software (including calculators) to aid in problem-solving and investigation, and recognize its limitations. (Applied Learning, Critical Thinking)
3. Apply appropriate statistical procedures and defend chosen assumptions. (Applied Learning, Personal and Social Responsibility)
4. Draw statistical conclusions and evaluate the validity of others' reported conclusions. (Critical Thinking, Information Literacy)
5. Investigate, discuss, and respond to ethical and social challenges in a mathematical context. (Communication Fluency, Personal and Social Responsibility, Information Literacy)
6. Perform advanced statistical analysis on real data and deliver written and oral presentations (Specialized Knowledge, Communication Fluency, Information Literacy)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 151	Calculus I-GTMA1 [2]	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences		
Select one Natural Sciences course		3

Select one Natural Sciences course with a lab	4
Total Semester Credit Hours	**31**

[1] Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.
[2] This is a 5 credit course. 3 credits apply to the Essential Learning requirements and 2 credits apply to electives.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(8 semester hours)

Code	Title	Semester Credit Hours
MATH 152	Calculus II	5
STAT 200	Probability and Statistics-GTMA1	3
Total Semester Credit Hours		**8**

Program Specific Degree Requirements

(45-47 semester hours, must maintain a 2.50 cumulative GPA or higher in coursework in this area. At most one “D” may be used in completing major requirements.)

Code	Title	Semester Credit Hours
Core Courses		
MATH 150	Topics and Careers in Mathematics	1
MATH 225	Computational Linear Algebra	3
MATH 253	Calculus III	4
MATH 492	Senior Capstone	3
Select one of the following:		4
CSCI 110 & 110L	Beginning Programming and Beginning Programming Laboratory	
CSCI 111	CS1: Foundations of Computer Science	
CSCI 130	Introduction to Engineering Computer Science	
Concentration Courses		
CSCI 260	Introduction to Database	3
STAT 301	Computational Statistics	3
STAT 312	Correlation and Regression	3
STAT 350	Mathematical Statistics I	3
Concentration Electives		
Select one of the following:		3-4
MATH 240	Introduction to Advanced Mathematics	
MATH 369	Discrete Structures I	
Select five courses from the groups below. At least three courses must be from Group A and the remaining courses may be from either group.		15-16
Group A		
STAT 313	Sampling Techniques	
STAT 351	Mathematical Statistics II	
STAT 425	Design and Analysis of Experiments	
STAT 430	Categorical Data Analysis	
Group B		
MATH 325	Linear Algebra [1]	
MATH 352	Advanced Calculus [1]	
MATH 360	Methods of Applied Mathematics [2]	
MATH 361	Numerical Analysis	
MATH 362	Fourier Analysis	
MATH 365	Mathematical Modeling	
MATH 369	Discrete Structures I [3]	
MATH 427	Financial Mathematics	
Total Semester Credit Hours		**45-47**

[1] Has prerequisite of MATH 240: Introduction to Advanced Mathematics.
[2] Has prerequisite of MATH 260: Differential Equations.
[3] Cannot be double counted if used in the elective choice between MATH 240 and MATH 369 above.

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours. 28-30 semester hours, 9-13 additional upper division hours may be needed.

Code	Title	Semester Credit Hours
MATH 151	Calculus I-GTMA1	2
Select additional electives		26-28
Total Semester Credit Hours		**28-30**

Suggested Course Plan

While the sequencing below culminates in a total of 118-122 semester credit hours, students must complete a minimum of 120 semester credit hours as required for completion of this degree, including satisfactory completion of all required courses. Plan to complete requirements with varying hour options accordingly.

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
Essential Learning - Natural Sciences		3

Essential Learning - Social and Behavioral Sciences		3
KINA Activity		1
KINE 100	Health and Wellness	1
MATH 151	Calculus I-GTMA1	5
	Semester Credit Hours	**16**
Spring Semester		
Select one of the following:		4
CSCI 110 & 110L	Beginning Programming and Beginning Programming Laboratory	
CSCI 111	CS1: Foundations of Computer Science	
CSCI 130	Introduction to Engineering Computer Science	
ENGL 112	English Composition II-GTCO2	3
Essential Learning - Social and Behavioral Sciences		3
MATH 150	Topics and Careers in Mathematics	1
MATH 152	Calculus II	5
	Semester Credit Hours	**16**
Second Year		
Fall Semester		
Essential Learning - Fine Arts		3
Essential Learning - History		3
General Elective		3
MATH 253	Calculus III	4
STAT 200	Probability and Statistics-GTMA1	3
	Semester Credit Hours	**16**
Spring Semester		
CSCI 260	Introduction to Database	3
Essential Learning - Natural Science with Lab		4
MATH 225	Computational Linear Algebra	3
MATH 240 or MATH 369	Introduction to Advanced Mathematics or Discrete Structures I	3-4
	Semester Credit Hours	**13-14**
Third Year		
Fall Semester		
STAT 301	Computational Statistics	3
STAT 350	Mathematical Statistics I	3
Essential Learning - Humanities		3
ESSL 200	Essential Speech	1
ESSL 290	Maverick Milestone	3
General Elective		3
	Semester Credit Hours	**16**
Spring Semester		
STAT 312	Correlation and Regression	3
Concentration Elective from Group A		3
Concentration Elective from Group A or B		3
General Electives		6
	Semester Credit Hours	**15**
Fourth Year		
Fall Semester		
MATH 492	Senior Capstone	3
Concentration Elective from Group A		3
Concentration Elective from Group A or B		3-4
General Electives		6
	Semester Credit Hours	**15-16**
Spring Semester		
Concentration Elective from Group A		3
General Electives		8-10
	Semester Credit Hours	**11-13**
	Total Semester Credit Hours	**118-122**

Advising and Graduation
Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Mathematics, Liberal Arts (AS)

Degree: Associate of Science
Major: Liberal Arts
Emphasis: Mathematics
Program Code: 2425

The Associate of Science (A.S.) degree with an emphasis in mathematics provides students with a reasonable exposure to foundational college-level mathematics. The A.S. is the appropriate choice for students who will take upper division coursework in mathematics, biological sciences, and physical sciences. The degree program includes the Colorado Statewide General Education Core and meets the lower division general education requirements at most public institutions in Colorado. By completing this degree, students should be able to matriculate into a baccalaureate degree in mathematics with only 60 additional hours of coursework.

Important information for this degree:

- Students must maintain a 2.5 cumulative GPA or higher in all CMU coursework.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource and the Mathematics website.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Construct multi-step problem-solving strategies, and communicate solutions effectively in written form. (Specialized Knowledge/ Quantitative Fluency)
2. Use mathematical software (including calculators) to aid in problem-solving and investigation, and understand its limitations. (Applied Learning)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU or CMU Tech Associate of Science (AS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours total.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade of "C" or higher must be earned in all Essential Learning courses in order to be accepted for transfer under the Colorado Core Transfer Consortium General Education curriculum or gtPathways, Colorado's guaranteed transfer program.
- A course may only be used to fulfill one requirement for each degree/ certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 15 semester credit hours for an associate of science degree. A maximum of 6 of the 15 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this degree:

- Students must maintain a 2.5 cumulative GPA or higher in all CMU coursework.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 119	Precalculus Mathematics-GTMA1 [2]	3
or MATH 151	Calculus I-GTMA1	
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine arts course		3
Natural Sciences [3]		
Select one Natural Sciences course with a lab		4
Select one Natural Sciences course		3
Total Semester Credit Hours		**31**

1. Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.
2. Both options are 5 semester credit hour courses. Of the course selected, 3 credits apply to the Essential Learning Requirements and 2 credits apply to electives.
3. One course must include a lab.

Other Lower Division Requirements

(2 semester hours)

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Total Semester Credit Hours		**2**

Program Specific Degree Requirements

(15-21 semester hours, no more than one "D" grade may be used. A GPA of 2.5 or higher must be maintained for all coursework toward the major content area.)

Code	Title	Semester Credit Hours
MATH 151	Calculus I-GTMA1 [1]	5
MATH 152	Calculus II	5
MATH 253	Calculus III	4
MATH 260	Differential Equations	3-4
or MATH 236	Differential Equations and Linear Algebra	
STAT 200	Probability and Statistics-GTMA1	3
Total Semester Credit Hours		**20-21**

[1] If MATH 151 is used to satisfy the Mathematics Essential Learning Requirement, only 15 semester hours are required for the emphasis.

General Electives

(6-12 semester hours)

Code	Title	Semester Credit Hours
MATH 119	Precalculus Mathematics-GTMA1	2
or MATH 151	Calculus I-GTMA1	
Select courses not listed above that will bring your total semester hours to 60 hours [1]		4-10
Total Semester Credit Hours		**6-12**

[1] Recommended: MATH 240 or CSCI 111.

Suggested Course Plan

While the sequencing below culminates in a total of 60-62 semester credit hours, students must complete a minimum of 60 semester credit hours as required for completion of the degree, including satisfactory completion of all required courses. Plan to complete requirements with varying hour options accordingly.

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
MATH 151	Calculus I-GTMA1	5
Essential Learning - Natural Science with lab		4
Essential Learning - Social and Behavioral Sciences		3
	Semester Credit Hours	**15**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
MATH 152	Calculus II	5
Essential Learning - Natural Science without lab		3
STAT 200	Probability and Statistics-GTMA1	3
Wellness Requirement - Activities Course		1
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
MATH 253	Calculus III	4
Essential Learning - Humanities		3
CSCI 111	CS1: Foundations of Computer Science (Or Elective)	3-4
Essential Learning - Social and Behavioral Sciences		3
KINE 100	Health and Wellness	1
	Semester Credit Hours	**14-15**
Spring Semester		
MATH 260	Differential Equations	3
MATH 240	Introduction to Advanced Mathematics (or Elective)	3-4
Essential Learning - Fine Arts		3
Essential Learning - History		3
General Elective [1]		4
	Semester Credit Hours	**16-17**
	Total Semester Credit Hours	**60-62**

[1] Students that intend to continue with Colorado Mesa University should also take ESSL 290 and ESSL 200 during the final semester of their Associate of Science work.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.

- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Mathematics (Minor)

Minor: Mathematics
Program Code: M460

A minor in mathematics is a natural enhancement to many majors outside mathematics where an understanding of mathematics is needed (e.g. physics, engineering, computer science, chemistry, biology, geology). A minor in mathematics enables non-mathematics majors to complete a focused course of study in mathematics on a smaller scale.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(19-24 semester hours)

Code	Title	Semester Credit Hours
MATH 152	Calculus II	4-5
or MATH 136	Engineering Calculus II	
Complete two courses from Group A OR two courses from Group B:		6-8
Group A:		
MATH 225	Computational Linear Algebra	
MATH 240	Introduction to Advanced Mathematics	
MATH 253	Calculus III	
MATH 260	Differential Equations	
Group B:		
MATH 236	Differential Equations and Linear Algebra	
MATH 240	Introduction to Advanced Mathematics	
MATH 253	Calculus III	
Group C:		
Select three of the following		9-11
MATH 310	Number Theory	
MATH 325	Linear Algebra	
MATH 352	Advanced Calculus	
MATH 360	Methods of Applied Mathematics	
MATH 361	Numerical Analysis	
MATH 362	Fourier Analysis	
MATH 365	Mathematical Modeling	
MATH 366	Methods of Applied Mathematics II	
MATH 369	Discrete Structures I	
MATH 386	Geometries	
MATH 420	Introduction to Topology	
MATH 427	Financial Mathematics	
MATH 430	Mathematical Logic	
MATH 450	Complex Variables	
MATH 452	Introduction to Real Analysis I	
MATH 453	Introduction to Real Analysis II	
MATH 460	Advanced Linear Algebra	
MATH 466	Methods of Applied Mathematics III	
MATH 490	Abstract Algebra I	
MATH 491	Abstract Algebra II	
MATH 396	Topics	
or MATH 49(	Topics	
STAT 350	Mathematical Statistics I	
Total Semester Credit Hours		**19-24**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic

advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the "Intent to Graduate" form.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Statistics (Minor)

Minor: Statistics
Program Code: M465

A minor in statistics is a natural enhancement to many majors outside mathematics where an understanding of statistical analysis of data is needed (e.g. biology, business, psychology, sociology, history, human performance and wellness, political science). A minor in statistics enables non-mathematics majors to complete a focused course of study in statistics on a smaller scale.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(18-21 semester hours)

Code	Title	Semester Credit Hours
Required Courses		
Select one of the following:		3-4
STAT 200	Probability and Statistics-GTMA1	
STAT 215	Statistics for Social and Behavioral Sciences	
STAT 241	Introduction to Business Analysis	
CISB 241	Introduction to Business Analysis	
Select one of the following:		3-5
MATH 121	Calculus for Business	
MATH 131	Applied Calculus-GTMA1	
MATH 135	Engineering Calculus I	
MATH 151	Calculus I-GTMA1	
Core Course		
STAT 301	Computational Statistics	3
Restricted Electives		
Choose 9 credit hours from the following:		9
STAT 305	Statistics and Quality Control for Engineering	
STAT 312	Correlation and Regression	
STAT 313	Sampling Techniques	
STAT 350	Mathematical Statistics I	
STAT 351	Mathematical Statistics II	
STAT 396	Topics	
STAT 425	Design and Analysis of Experiments	
STAT 430	Categorical Data Analysis	
STAT 496	Topics	
Total Semester Credit Hours		**18-21**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards

a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the "Intent to Graduate" form.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Mechanical Engineering

Program Description

Colorado Mesa University and the University of Colorado Boulder have created a partnership to deliver a mechanical engineering program in its entirety in Grand Junction. The CMU-CU Boulder Mechanical Engineering Partnership Program prepares students for careers in a wide range of industries through the rigorous study of mechanical engineering. Students completing the program will be awarded a Bachelor of Science in Mechanical Engineering degree from CU Boulder.

Special Requirements

Students enter CMU as "pre-engineering" majors. A student may apply for admission to the University of Colorado Boulder through the Engineering Partnership Program when they have satisfied all criteria of one of the following scenarios:

Scenario 1

- Complete a college-level, two-course sequence in calculus with a grade of B− or higher
- Complete one college-level physical science course (calculus-based physics and/or college-level chemistry) with a grade of B− or higher
- Maintain a college-level cumulative GPA of 3.0 or higher

Scenario 2

- Complete the first- and second-year course sequence listed on the current Program Sheet or Degree Plan for the Engineering Partnership Program
- Maintain a college-level cumulative GPA of 3.0 or higher

Interested students can learn more about the program and admission options on the Department of Computer Science and Engineering website.

Contact Information

Department of Computer Science and Engineering
Confluence Hall
1410 North 7th Street
Grand Junction, CO, 81501
970.248.1400

Programs of Study Bachelors/Minors

- Mechanical Engineering, CMU/CU-Boulder Partnership Program (BSME) (p. 606)

Mechanical Engineering, CMU/CU-Boulder Partnership Program (BSME)

Degree: Bachelor of Science in Mechanical Engineering
Major: Mechanical Engineering
Program Code: 3451

This section provides a link to information for the CMU-CU Boulder Mechanical Engineering Partnership Program. An official review of your coursework will be performed by CU administration to ensure completion of all graduation requirements.

Important information for this program:

- All Math, Science and Engineering courses completed at CMU must be completed with a grade of "C" or better to be eligible to transfer to CU Boulder.
- Minimum credits taken from CU Boulder: 45 hrs
- Minimum credits to graduate: 128 hrs

For more information on the CMU-CU Partnership Degree in Mechanical Engineering, visit the CMU-CU Boulder Engineering Partnership Program web page.

Mechanical Engineering Technology

The Bachelor of Science in Mechanical Engineering Technology degree is accredited by the ETAC Accreditation Commission(s) of ABET, https://www.abet.org, under the General Criteria and the Mechanical Engineering Technology Program Criteria.

Program Description

The **Bachelor of Science in Mechanical Engineering Technology** aims to provide the knowledge necessary to apply state-of-the-art techniques to design and build products and systems to meet the current and future needs of society. The mechanical engineering technology major is designed for a student who is a doer or implementer--one who is able to apply mathematics, natural sciences, engineering principles, and current engineering practices to the solution of design problems and to the operation and testing of mechanical systems.

Laboratory courses are an integral component of the mechanical engineering technology program and are designed to develop student competence to apply experimental design methods, as well as provide a "hands-on" approach to designing and building products and systems to meet the current and future needs of society.

The **Associate of Applied Science in Mechanical Engineering Technology** provides graduates the skills and knowledge for a successful transition to either a career as a mechanical engineering technician or to continue in the Bachelor of Science program.

Contact Information

Department of Computer Science and Engineering
Confluence Hall
1410 North 7th Street
Grand Junction, CO, 81501
970.248.1400

Programs of Study

Associates

- Mechanical Engineering Technology (AAS) (p. 611)

Bachelors

- Mechanical Engineering Technology (BS) (p. 607)

Mechanical Engineering Technology (BS)

Degree: Bachelor of Science
Major: Mechanical Engineering Technology
Program Code: 3453

The objective of the Mechanical Engineering Technology Program (MET) is to provide the knowledge necessary to apply state-of-the-art techniques to design and build products and systems to meet the current and future needs of society. The Bachelor of Science Degree in Mechanical Engineering Technology is designed for a student who is doer or implementer - one who is able to apply mathematics, the natural and engineering sciences, engineering principles, and current engineering practices to the solution of design problems and to the operation and testing of mechanical systems.

The MET graduate applies established procedures that use current state-of-the-art techniques to work with mechanical systems. Laboratory courses are an integral component of the MET program and are designed to develop student competence to apply experimental design methods, as well as provide a “hands-on” approach to designing and building products and systems to meet the current and future needs of society. The employment of METs in manufacturing related areas should increase as the demand for improved machinery and machine tools grows and industrial machinery and processes become increasingly complex. Emerging technologies in biotechnology, and nanotechnology will create new job opportunities for METs. In addition to job openings from growth, many openings should result from the need to replace workers who leave the labor force.

The BS MET program is 126 semester hours and is accredited by the Engineering Technology Accreditation Commission (ETAC) of the Accreditation Board for Engineering and Technology (ABET). To graduate with a major in mechanical engineering technology, a student must earn, with no more than three attempts, at least a grade of "C" in the major courses and all prerequisites, and take the Fundamentals of Engineering (FE) Exam at an NCEES-approved test center prior to graduation.

For more information on what you can do with this major, visit Career Services’ What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve broadly-defined engineering problems appropriate to the discipline.(Critical Thinking/Applied Learning)
2. Design systems, components, or processes meeting specified needs for broadly-defined engineering problems appropriate to the discipline. (Specialized Knowledge)
3. Apply written, oral, and graphical communication in broadly defined technical and non-technical environments, and identify and use appropriate technical literature. (Information Literacy, Communication Fluency)
4. Conduct standard tests, measurements, and experiments and analyze and interpret the results to improve processes.(Quantitative Fluency)
5. Function effectively as a member as well as a leader on technical teams. (Specialized Knowledge)
6. Recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts. (Ethical Reasoning)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Specific to this degree:

- 126 semester hours for the BS in Mechanical Engineering Technology.
- Students must register for and complete the Fundamentals of Engineering (FE) exam at an NCEES-approved test center prior to graduation.
- To continue in and graduate from the BS MET program, students must earn a minimum grade of "C" in the major requirements and in all prereqs for the major requirements within no more than three attempts.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 135	Engineering Calculus I [2]	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
SOCI 120	Technology and Society-GTSS3	3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [3]		
PHYS 131 & 131L	Fundamental Mechanics-GTSC1 and Fundamental Mechanics Laboratory-GTSC1 [1]	5
CHEM 151 or CHEM 131	Engineering Chemistry-GTSC1 [1,4] General Chemistry I-GTSC1	2
Total Semester Credit Hours		**31**

1. Must receive a grade of “C” or better and must be completed by the time the student has 60 semester hours.
2. This is a 4 semester credit hour course. 3 credits apply to the Essential Learning requirements and 1 credit applies to Foundation Courses.
3. One course must include a lab.
4. This is a 4 semester credit hour course. 2 credits apply to Essential Learning requirements and 2 credits apply to Foundation Courses.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

1. Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(13 semester hours, must pass each course with a grade of “C” or higher within no more than three attempts.)

Code	Title	Semester Credit Hours
Choose one of the following:		3
CHEM 151 & 151L	Engineering Chemistry-GTSC1 and Engineering Chemistry Laboratory-GTSC1	
CHEM 131 & 131L	General Chemistry I-GTSC1 and General Chemistry Laboratory I-GTSC1	
MAMT 102	Machining Fundamentals	1
MATH 135	Engineering Calculus I	1
MAMT 105	Print Reading and Sketching	2
MAMT 106	Geometric Tolerancing	2
MATH 136	Engineering Calculus II	4
Total Semester Credit Hours		**13**

Program Specific Degree Requirements

(76 semester hours, must pass each course with a grade of “C” or higher within no more than three attempts, and maintain a 2.0 cumulative GPA or higher in coursework in this area. Prerequisites for these courses must be passed with a grade of "C" or higher within no more than three attempts.)

Code	Title	Semester Credit Hours
Basic Engineering Courses		
ENGR 101	Introduction to Engineering	1
ENGR 125	Computer-Aided Design and Fabrication	3
ENGR 140	First-Year Engineering Project	3
ENGR 224 & 224L	Materials Science and Materials Science Laboratory	3
ENGR 225	Introduction to Manufacturing	3
ENGR 261	Statics and Structures	3
ENGR 263	Mechanics of Solids	3
MET Courses		
ENGR 305	Engineering Economics and Ethics	2
ENGR 312	Engineering Thermodynamics	3
ENGR 317 & 317L	Fundamentals of Circuits and Electronics and Fundamentals of Circuits and Electronics Laboratory	3
ENGR 321	Fluid Mechanics	3
ENGR 325	Component Design	3
ENGR 343	Dynamics	3
ENGR 345	Engineering Integration I	3
ENGR 385	Engineering Integration II	3
ENGR 401	Professionalism Seminar	1
ENGR 427	Engineering Measurements	2
ENGR 435	Industrial Controls	3
ENGR 445	MET Design Project I	3
ENGR 485	MET Design Project II	3
Other Required Courses		
CSCI 130	Introduction to Engineering Computer Science	4
ENGL 325	Writing for Engineers	3
STAT 305	Statistics and Quality Control for Engineering	3

Restricted Electives	
Complete 12 semester hours at the 300 or 400 level with an ENGR prefix or MATH 236 or other course(s) with advisor approval.	12
Other Requirements	
Fundamentals of Engineering (FE) Exam Taken	
Total Semester Credit Hours	**76**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
ENGR 101	Introduction to Engineering	1
ENGR 125	Computer-Aided Design and Fabrication	3
KINE 100	Health and Wellness	1
MAMT 105	Print Reading and Sketching	2
MAMT 106	Geometric Tolerancing	2
MATH 135	Engineering Calculus I	4
	Semester Credit Hours	**16**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
ENGR 140	First-Year Engineering Project	3
MAMT 102	Machining Fundamentals	1
MATH 136	Engineering Calculus II	4
PHYS 131 & 131L	Fundamental Mechanics-GTSC1 and Fundamental Mechanics Laboratory-GTSC1	5
	Semester Credit Hours	**16**
Second Year		
Fall Semester		
CSCI 130	Introduction to Engineering Computer Science	4
ENGR 261	Statics and Structures	3
Choose one of the following:		5
CHEM 151 & 151L	Engineering Chemistry-GTSC1 and Engineering Chemistry Laboratory-GTSC1	
CHEM 131 & 131L	General Chemistry I-GTSC1 and General Chemistry Laboratory I-GTSC1	
Essential Learning - Humanities		3
KINA Activity		1
	Semester Credit Hours	**16**
Spring Semester		
ENGL 325	Writing for Engineers	3
ENGR 224 & 224L	Materials Science and Materials Science Laboratory	3
ENGR 263	Mechanics of Solids	3
SOCI 120	Technology and Society-GTSS3	3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
	Semester Credit Hours	**16**
Third Year		
Fall Semester		
ENGR 225	Introduction to Manufacturing	3
ENGR 305	Engineering Economics and Ethics	2
ENGR 312	Engineering Thermodynamics	3
ENGR 321	Fluid Mechanics	3
STAT 305	Statistics and Quality Control for Engineering	3
ENGR 345	Engineering Integration I	3
	Semester Credit Hours	**17**
Spring Semester		
ENGR 317 & 317L	Fundamentals of Circuits and Electronics and Fundamentals of Circuits and Electronics Laboratory	3
ENGR 325	Component Design	3
ENGR 343	Dynamics	3
ENGR 385	Engineering Integration II	3
Restricted Elective		3
	Semester Credit Hours	**15**
Fourth Year		
Fall Semester		
ENGR 401	Professionalism Seminar	1
ENGR 427	Engineering Measurements	2
ENGR 445	MET Design Project I	3
Essential Learning - Fine Arts		3
Essential Learning - History		3
Restricted Elective		3
	Semester Credit Hours	**15**
Spring Semester		
ENGR 435	Industrial Controls	3
ENGR 485	MET Design Project II	3
Essential Learning - Social/Behavioral Sciences		3
Restricted Elective		6
	Semester Credit Hours	**15**
	Total Semester Credit Hours	**126**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Mechanical Engineering Technology (AAS)

Degree: Associate of Applied Science
Major: Mechanical Engineering Technology
Program Code: 1453

The objective of the Associate of Applied Science (AAS) in Mechanical Engineering Technology (MET) is to provide the knowledge necessary to aid in the design and realization of products and systems to meet the current and future needs of society. Completion of this applied engineering technology program provides graduates with the skills and knowledge for a successful transition to either a career as a mechanical engineering technician or to the Bachelor of Science program in Mechanical Engineering Technology.

The AAS in MET is designed for a student who is a doer or implementer - one who is able to apply mathematics, the natural and engineering sciences, engineering principles, and current engineering practices to the operation and testing of mechanical systems. Laboratory courses are an integral component of the MET program and are designed to develop student competence to apply experimental design methods, as well as provide a "hands-on" approach to building products and systems.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Apply the knowledge, techniques, skills, and modern tools of engineering to engineering problems. (Critical Thinking/Applied Learning)
2. Apply knowledge of mathematics, science, and technology to engineering problems. (Quantitative Fluency)
3. Effectively use oral, written, and graphical communication skills to address both technical and non-technical audiences. (Communication Fluency)
4. Apply the ethical standards of the discipline to engineering problems. (Personal and social responsibility)
5. Develop scholarly arguments by locating, evaluating, applying, and synthesizing information from sociological and other social scientific sources. (Information Literacy)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this degree:

- 68 semester hours total for the AAS, Mechanical Engineering Technology.

Essential Learning Requirements

(16 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
Communication		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics		
MATH 135	Engineering Calculus I	4
Humanities		
Select one Humanities Course		3
Social and Behavioral Sciences		

SOCI 120	Technology and Society-GTSS3	3
Total Semester Credit Hours		**16**

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one KINA Activity course		1
Total Semester Credit Hours		**2**

Program Specific Degree Requirements

(50 semester hours, must earn a grade of "C" or better in each course.)

Code	Title	Semester Credit Hours
CSCI 130	Introduction to Engineering Computer Science	4
Select one of the following Course/Lab combinations:		5
CHEM 151 & 151L	Engineering Chemistry-GTSC1 and Engineering Chemistry Laboratory-GTSC1	
CHEM 131 & 131L	General Chemistry I-GTSC1 and General Chemistry Laboratory I-GTSC1	
ENGR 224 & 224L	Materials Science and Materials Science Laboratory	3
MAMT 105	Print Reading and Sketching	2
MAMT 106	Geometric Tolerancing	2
MAMT 115	Introduction to Machine Shop	3
MAMT 148	CNC Applications	3
MAMT 251	CNC Machining I	3
MAMT 255	CNC Machining II	3
MATH 136	Engineering Calculus II	4
PHYS 131 & 131L	Fundamental Mechanics-GTSC1 and Fundamental Mechanics Laboratory-GTSC1	5
ENGR 101	Introduction to Engineering	1
ENGR 125	Computer-Aided Design and Fabrication	3
ENGR 140	First-Year Engineering Project	3
ENGR 261	Statics and Structures	3
ENGR 263	Mechanics of Solids	3
Total Semester Credit Hours		**50**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
ENGR 101	Introduction to Engineering	1
ENGR 125	Computer-Aided Design and Fabrication	3
KINE 100	Health and Wellness	1
MATH 135	Engineering Calculus I	4
MAMT 105	Print Reading and Sketching	2
MAMT 106	Geometric Tolerancing	2
	Semester Credit Hours	**16**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
ENGR 140	First-Year Engineering Project	3
MAMT 115	Introduction to Machine Shop	3
MATH 136	Engineering Calculus II	4
PHYS 131 & 131L	Fundamental Mechanics-GTSC1 and Fundamental Mechanics Laboratory-GTSC1	5
	Semester Credit Hours	**18**
Second Year		
Fall Semester		
CHEM 151 & 151L	Engineering Chemistry-GTSC1 and Engineering Chemistry Laboratory-GTSC1	5
CSCI 130	Introduction to Engineering Computer Science	4
ENGR 261	Statics and Structures	3
MAMT 148	CNC Applications	3
Humanities		3
	Semester Credit Hours	**18**
Spring Semester		
ENGR 224 & 224L	Materials Science and Materials Science Laboratory	3
ENGR 263	Mechanics of Solids	3
MAMT 251	CNC Machining I	3
MAMT 255	CNC Machining II	3
SOCI 120	Technology and Society-GTSS3	3
KINA Activity Course		1
	Semester Credit Hours	**16**
	Total Semester Credit Hours	**68**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.

- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Mechatronics

Program Description

The Mechatronics program is developed around the interface of mechanical and electrical systems frequently used in manufacturing. Other applied fields involve commercial and industrial companies that use automated mechanical and electrical systems to assemble, separate, monitor, and transfer products.

Through sequenced coursework, students learn how to integrate various types of electrical, pneumatic, and mechanical motors. Specifically, instruction focuses on the use of Program Logic Controller (PLC) programming and diagnostics. Students will also learn how to read and create schematics for mechanical-electrical component production and installation for real-world applications.

Ultimately, students will build functioning interdependent PLC-driven systems using hydraulic, pneumatic, electrical, and motor controls. Using this combination of software and hardware culminates in the construction of a fully functioning assembly line trainer to help students develop the design, implementation, and troubleshooting skills required across various industries. Hands-on experience is provided through our on-campus labs as well as the Sturm-ANB Bank Mobile Learning Lab, a state-of-the-art mobile lab, that incorporates modern manufacturing equipment and controllers to create a mini manufacturing floor specifically designed for learning. The Mobile Learning Lab is used to provide experience in operations, troubleshooting, and repair of electromechanical systems.

Contact Information

CMU Tech
Office of Student Services, Kayenta Hall 102
2508 Blichmann Avenue
970.255.2670

Programs of Study

Associates

- Mechatronics (AAS) (p. 613)

Certificates

- Mechatronics: Automation and Instrumentation (Technical Certificate) (p. 615)
- Mechatronics: Electronics Technician (Technical Certificate) (p. 617)

Mechatronics (AAS)

Degree: Associate of Applied Science
Major: Mechatronics
Major Code: 1398

The Mechatronics program responds to a new and emerging career that trains technicians with "multi-craft" skills to work on robotic and "intelligent" equipment ranging from ATM machines to multi-million-dollar manufacturing cells. The skills taught include electrical, mechanical, and computer technologies. Mechatronics technicians will assist the design, development and engineering staff, and install, maintain, modify

and repair mechatronic systems, equipment and component parts. The program combines academic training with hands-on activities.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Demonstrate communication skills to include listening, speaking, writing and electronic formats.(Communication Fluency, Information Literacy)
2. Demonstrate ethical, civic, and work place responsibility as part of professional behavior.(Personal and Social Responsibility)
3. Analyze and implement systems containing hardware and software components.(Specialized Knowledge)
4. Demonstrate safe work habits in performance of tasks. (Applied Learning)
5. Demonstrate basic troubleshooting skill sets and repair skill sets to fulfill the needs of entry-level employment. (Critical Thinking, Quantitative Literacy)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this degree:

- A minimum of 60 semester credit hours is required for the AAS in Mechatronics.

Essential Learning Requirements

(16 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
Communication		
ENGL 111	English Composition I-GTCO1	3
Select one of the following courses:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communication	
SPCH 102	Speechmaking	
Mathematics		
MATH 108	Technical Mathematics (or higher) [1]	4
Other Essential Learning Core Courses		
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
Total Semester Credit Hours		**16**

[1] MATH 108 is a 4-semester credit hour course; however, if a student completes a higher-level, Essential Learning eligible Mathematics course it must be at least 4 semester credit hours.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
KINA 1XX	Activity Course	1
Total Semester Credit Hours		**2**

Program Specific Degree Requirements

(42 semester hours, must earn a grade of "C" or better in each course)

Code	Title	Semester Credit Hours
CSCI 110	Beginning Programming	3
ELCE 124	Electrical Safety	1
ELCE 150	DC Circuit Fundamentals	4
ELCE 155	AC Circuit Fundamentals	4
ELCE 220	Industrial Controls	4
ELCE 222	Instrumentation and Process	4
ELCE 225	Introduction to PLCs	4
ELCE 229	AC/DC Variable Speed Drive	2
ELCE 263	Specific Wiring for Structured Cabling Systems	2
CADT 108	CAD - Mechanical	3
MAMT 115	Introduction to Machine Shop	3
MAMT 145	Machine Maintenance	2
TECI 142	Internet of Things	3
TSTG 150	Introduction to Fluid Power	3
Total Semester Credit Hours		**42**

Suggested Course Plan

Due to a potential variation in semester credit hours for the Essential Learning Mathematics credits, the following sequencing results in variable credit hours; however, students in this major must complete a minimum of 60 semester credit hours, including satisfactory completion of all required courses, for satisfactory completion of degree.

First Year		
Fall Semester		**Semester Credit Hours**
ELCE 124	Electrical Safety	1
ELCE 150	DC Circuit Fundamentals	4
ELCE 225	Introduction to PLCs	4
MAMT 115	Introduction to Machine Shop	3
MATH 108	Technical Mathematics (or higher) [1]	4
	Semester Credit Hours	**16**
Spring Semester		
CSCI 110	Beginning Programming	3
ELCE 155	AC Circuit Fundamentals	4
TECI 142	Internet of Things	3
MAMT 145	Machine Maintenance	2
KINE 100	Health and Wellness	1
KINA Activity		1
	Semester Credit Hours	**14**
Second Year		
Fall Semester		
ELCE 222	Instrumentation and Process	4
ELCE 263	Specific Wiring for Structured Cabling Systems	2
CADT 108	CAD - Mechanical	3
ENGL 111	English Composition I-GTCO1	3
Essential Learning Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
	Semester Credit Hours	**15**
Spring Semester		
ELCE 220	Industrial Controls	4
ELCE 229	AC/DC Variable Speed Drive	2
TSTG 150	Introduction to Fluid Power	3
Select one of the following:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communication	
SPCH 102	Speechmaking	
Essential Learning Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
	Semester Credit Hours	**15**
	Total Semester Credit Hours	**60**

[1] MATH 108 is a 4-semester credit hour course; however, if a student completes a higher-level, Essential Learning-eligible Mathematics course it must be at least 4 semester credit hours.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Mechatronics: Automation and Instrumentation (Technical Certificate)

Award: Technical Certificate
Major: Mechatronics

Emphasis: Automation and Instrumentation
Program Code: 1198

The Mechatronics Technician program responds to a new and emerging career that trains technicians with “multi-craft” skills to work on robotic and “intelligent” equipment ranging from ATM machines to multi-million-dollar manufacturing cells. The skills taught include electrical, mechanical, and computer technologies. Mechatronics technicians will assist the design, development and engineering staff, and install, maintain, modify and repair mechatronic systems, equipment and component parts. The program combines academic training with hands-on activities.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Demonstrate safe work habits in performance of tasks. (Applied Learning)
2. Demonstrate basic electrical/electronic circuit troubleshooting skill sets and repair skill sets to fulfill the needs of entry-level employment. (Critical Thinking)
3. Demonstrate basic hydraulic, pneumatic, troubleshooting skill sets and repair skill sets to fulfill the needs of entry-level employment. (Critical Thinking)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than “C” will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(31 semester hours)

Code	Title	Semester Credit Hours
ELCE 124	Electrical Safety	1
ELCE 150	DC Circuit Fundamentals	4
ELCE 155	AC Circuit Fundamentals	4
ELCE 220	Industrial Controls	4
ELCE 225	Introduction to PLCs	4
ELCE 229	AC/DC Variable Speed Drive	2
MAMT 115	Introduction to Machine Shop	3
MAMT 145	Machine Maintenance	2
MATH 108	Technical Mathematics (or higher)	4
TSTG 150	Introduction to Fluid Power	3
Total Semester Credit Hours		**31**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ELCE 150	DC Circuit Fundamentals	4
ELCE 225	Introduction to PLCs	4
MAMT 115	Introduction to Machine Shop	3
MATH 108	Technical Mathematics [1]	4
ELCE 124	Electrical Safety	1
	Semester Credit Hours	**16**
Spring Semester		
ELCE 155	AC Circuit Fundamentals	4
ELCE 220	Industrial Controls	4
ELCE 229	AC/DC Variable Speed Drive	2
MAMT 145	Machine Maintenance	2
TSTG 150	Introduction to Fluid Power	3
	Semester Credit Hours	**15**
	Total Semester Credit Hours	**31**

[1] MATH 108 is a 4-semester credit hour course; however, if a student completes a higher-level, Essential Learning eligible Mathematics course it must be at least 4 semester credit hours.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Mechatronics: Electronics Technician (Technical Certificate)

Overview

Award: Technical Certificate
Program of Study: Mechatronics
Specialization: Electronics Technician
Program Code: 1197

Students enrolled in the Mechatronics Program learn a multitude of skills to help prepare them to enter a variety of careers: entry level employment as electronics technicians, process operators or technicians, related to computer systems, computer system administration and networking, electronics, and telecommunications engineering. Students begin the program studying basic core classes including communications, DC/AC circuitry, information technology hardware and software, and Cisco Systems Network training.

The coursework in this certificate is aligned with the Associate Level certification named the Associate Certified Electronics Technician (CeTa), given by the Electronics Technicians Association. This represents the electronics industry, which incorporates from the technician and educator to the corporate institution. Widely known for electronics certification programs and accredited by the International Certification Accreditation Council (ICAC), Program content has been structured to give a basic education to all graduates entering this field.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Demonstrate and communicate safe work habits in performance of tasks of entry-level employment as an electronics technician.\ (Specialized Knowledge and Communication Fluency)\
2. Demonstrate basic electrical/electronic circuit troubleshooting skill sets and repair skill sets to fulfill the needs of entry-level employment as an electronics technician.(Critical Thinking)
3. Demonstrate use of programmable logic\ controller (PLC), to fulfill the needs of entry-level employment as an electronics technician.(Critical Thinking)\ \

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and

internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this degree:

- 16 semester hours required for Technical Certificate in Mechatronics: Electronics Technician.

Program Specific Degree Requirements

(16 semester hours)

Code	Title	Semester Credit Hours
ELCE 150	DC Circuit Fundamentals	4
ELCE 155	AC Circuit Fundamentals	4
ELCE 225	Introduction to PLCs	4
MATH 108	Technical Mathematics (or higher) [1]	4
Total Semester Credit Hours		**16**

[1] MATH 108 is a 4-semester credit hour course; however, if a student completes a higher-level, Essential Learning eligible Mathematics course it must be at least 4 semester credit hours.

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ELCE 150	DC Circuit Fundamentals	4
MATH 108	Technical Mathematics (or higher) [1]	4
	Semester Credit Hours	**8**
Spring Semester		
ELCE 155	AC Circuit Fundamentals	4
ELCE 225	Introduction to PLCs	4
	Semester Credit Hours	**8**
	Total Semester Credit Hours	**16**

[1] MATH 108 is a 4-semester credit hour course; however, if a student completes a higher-level, Essential Learning eligible Mathematics course it must be at least 4 semester credit hours.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Medical Laboratory Technician

Program Description

The Medical Laboratory Technician (MLT) Program at Colorado Mesa University is five semesters in length. Essential Learning requirements and foundation courses are taken the first year and summer and the second year consists mainly of MLT program courses, followed by one semester of clinical internship at an affiliated site in western Colorado. The Medical Laboratory Technician program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS).

The majority of MLT courses are delivered in a blended format. Lecture is delivered online with lab sessions held on campus. All MLT courses are taken concurrently for each semester offered and in sequence starting in the fall.

The student will receive an Associate of Applied Science degree upon successful completion of the program. The graduate is eligible to take the Medical Laboratory Technician national certification exam through the American Society of Clinical Pathologists (ASCP). A passing score on the ASCP exam will allow the student to use the credentials of MLT (ASCP) CM after their name.

Phlebotomy courses are also offered to non-degree seeking students on a permission and space available basis; see the health sciences department for additional information.

Special Requirements

Admission into the University does not guarantee admission into the medical laboratory technology program which requires a separate application submitted in the spring for fall semester courses. Students planning on enrolling in medical laboratory technology courses must submit additional requirements. See the Health Sciences Department for additional information.

Contact Information

Department of Health Sciences
Health Sciences 101
970.248.1398

Programs of Study

Associates

- Medical Laboratory Technician (AAS) (p. 619)

Medical Laboratory Technician (AAS)

Degree: Associate of Applied Science
Major: Medical Laboratory Technician
Program Code: 1641

The Medical Laboratory Technician (MLT) Program at Colorado Mesa University is five semesters in length. Students complete Essential Learning, Program Specific Requirements, and Other Lower Division Requirements courses during the first year and summer. The MLTP program is competitive and requires a separate application process with selective admission requirements and set application deadlines. Students apply in the spring of the first year. Once accepted, the program is completed in three semesters and all program-specific MLT courses are taken concurrently for each semester offered and in sequence.

During the second year, students are enrolled in MLT theory and lab courses only. The MLT theory courses are delivered in a blended format, both online and in person. Weekly lab sessions are held on campus two days a week. The final semester of the program occurs during the fall semester of the third year. During this semester, students perform a clinical internship at an affiliated hospital located in western Colorado

Students successfully completing the program will receive an Associate of Applied Science as a Medical Laboratory Technician. Graduates are eligible to become nationally certified Medical Laboratory Technicians by examination through the American Society for Clinical Pathology (ASCP).

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Demonstrate the theoretical knowledge and technical skills in the performance of routine laboratory testing. (Specialized Knowledge/Applied Learning)
2. Demonstrate error recognition and the ability to integrate and interpret analytical data and establish a course of action to solve problems. (Critical Thinking)
3. Communicate courteously and effectively with laboratory personnel, other health care professionals, patients and the public. (Communication Fluency)
4. Apply mathematical calculations and statistical methods to ensure the accuracy of laboratory test results. (Quantitative Fluency)
5. Demonstrate laboratory practice standards in safety, professional behavior and ethical conduct. (Personal and Social Responsibility)
6. Identify, utilize, and cite various sources of relevant medical laboratory information. (Information literacy)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.

- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this program:

- 71 semester hours total for the AAS, Medical Laboratory Technician.

Essential Learning Requirements

(16 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
Communication		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics		
MATH 113	College Algebra-GTMA1	4
Other Essential Learning Core Courses		
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
Total Semester Credit Hours		**16**

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one KINA Activity course		1
Total Semester Credit Hours		**2**

Program Specific Degree Requirements

(53 semester hours, must earn a grade of "C" or better in each course unless otherwise noted. The following applied courses must be completed with a grade of "B" or higher: MLTP 180, MLTP 182, MLTP 250, and MLTP 252.)

Code	Title	Semester Credit Hours
Didactic Courses		
BIOL 209 & 209L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Laboratory	4
Select one of the following options:		5
CHEM 121 & 121L	Principles of Chemistry-GTSC1 and Principles of Chemistry Laboratory-GTSC1	
CHEM 131 & 131L	General Chemistry I-GTSC1 and General Chemistry Laboratory I-GTSC1	
BIOL 210 & 210L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Laboratory	4
MLTP 105	Introduction to Medical Laboratory Technology	3
MLTP 132 & 132L	Clinical Hematology and Coagulation and Clinical Hematology and Coagulation Lab	4
MLTP 138 & 138L	Clinical Immunology and Clinical Immunology Lab	3
MLTP 141 & 141L	Clinical Immunohematology and Clinical Immunohematology Lab	3
MLTP 142 & 142L	Clinical Microscopy and Clinical Microscopy Lab	3
MLTP 231 & 231L	Clinical Microbiology I and Clinical Microbiology I Lab	4
MLTP 232	Clinical Microbiology II	3
MLTP 242 & 242L	Clinical Chemistry and Clinical Chemistry Lab	4
Applied Courses [1]		
MLTP 180	Applied Immunohematology [2]	3
MLTP 182	Applied Hematology and Body Fluids [2]	3
MLTP 250	Applied Chemistry and Serology [2]	3
MLTP 252	Applied Microbiology [2]	3
MLTP 253	Certification Exam Review	1
Total Semester Credit Hours		**53**

[1] These courses may only be taken by Program Director Approval.
[2] Must be completed with a grade of "B" or higher.

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
MATH 113	College Algebra-GTMA1 (or Higher)	4
KINE 100	Health and Wellness	1
KINA - Activity Course		1
BIOL 209 & 209L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Laboratory	4
	Semester Credit Hours	**13**

Spring Semester		
ENGL 112	English Composition II-GTCO2	3
Select one of the following:		5
CHEM 121 & 121L	Principles of Chemistry-GTSC1 and Principles of Chemistry Laboratory-GTSC1	
CHEM 131 & 131L	General Chemistry I-GTSC1 and General Chemistry Laboratory I-GTSC1	
BIOL 210 & 210L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Laboratory	4
	Semester Credit Hours	**12**
Summer Semester		
Essential Learning - Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		6
	Semester Credit Hours	**6**
Second Year		
Fall Semester		
MLTP 105	Introduction to Medical Laboratory Technology	3
MLTP 138 & 138L	Clinical Immunology and Clinical Immunology Lab	3
MLTP 142 & 142L	Clinical Microscopy and Clinical Microscopy Lab	3
MLTP 231 & 231L	Clinical Microbiology I and Clinical Microbiology I Lab	4
	Semester Credit Hours	**13**
Spring Semester		
MLTP 141 & 141L	Clinical Immunohematology and Clinical Immunohematology Lab	3
MLTP 232	Clinical Microbiology II	3
MLTP 132 & 132L	Clinical Hematology and Coagulation and Clinical Hematology and Coagulation Lab	4
MLTP 242 & 242L	Clinical Chemistry and Clinical Chemistry Lab	4
	Semester Credit Hours	**14**
Third Year		
Fall Semester		
MLTP 180	Applied Immunohematology	3
MLTP 182	Applied Hematology and Body Fluids	3
MLTP 250	Applied Chemistry and Serology	3
MLTP 252	Applied Microbiology	3
MLTP 253	Certification Exam Review	1
	Semester Credit Hours	**13**
	Total Semester Credit Hours	**71**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Medical Office Assistant

Program Description

This program prepares individuals to perform routine clinical and administrative functions in healthcare facilities, primarily medical clinics or physician's offices. Students who successfully complete this program will be able to perform the administrative tasks of a medical receptionist and work in clinical areas by providing assistance with physical examinations, diagnostic tests, and treatment procedures. All students who successfully complete the program are eligible to take the national certification examination offered by the American Medical Technologists, a national certifying agency, to become a Registered Medical Assistant.

Students admitted to the Medical Office Assistant program must undergo a background check, submit proof of immunizations, and obtain professional liability insurance.

Contact Information

CMU Tech
Office of Student Services, Kayenta Hall 102
2508 Blichmann Avenue
970.255.2670

Programs of Study

Associates

- Medical Office Assistant (AAS) (p. 622)

Certificates

- Medical Office Assistant (Technical Certificate) (p. 624)

Medical Office Assistant (AAS)

Degree: Associate of Applied Science
Major: Medical Office Assistant
Program Code: 1396

This program prepares individuals to perform clinical and administrative functions in health care facilities, primarily medical clinics or physician's offices. Students successfully completing this program will be able to perform administrative tasks and work in the clinical areas by providing assistance with physical examinations, diagnostic tests, treatments, and procedures.

All students successfully completing the program are eligible to take the national certification examination offered by the American Medical Technologists, a national certifying agency, to become a Registered Medical Assistant.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Demonstrate proficient client assessment and use of information management systems in the medical setting.
2. Demonstrate accurate mathematical skills and quantitative reasoning as a base for patient care decisions.
3. Demonstrate effective oral and written communication utilizing medical terminology, computerized technology, accurate documentation, and verbal expression.
4. Provide safe, quality care by incorporating evidenced-based practice.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this degree:

- 61 semester hours total for the AAS, Medical Office Assistant.
- A minimum of 16 hours taken at CMU in no fewer than two semesters.

Essential Learning Requirements

(15 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
Communication		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
or SPCH 102	Speechmaking	
Mathematics		
MATH 107	Career Math (or higher)	3
Other Essential Learning Core Courses		
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
Total Semester Credit Hours		**15**

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Total Semester Credit Hours		**2**

Program Specific Degree Requirements

(44 semester hours, must earn a grade of "C" or better in each course.)

Code	Title	Semester Credit Hours
MOAP 110	Medical Office Administration	4
MOAP 111	Introduction to Medical Assisting	3
MOAP 130	Medical Office Administration Insurance Billing and Coding	3
MOAP 133	Basic Medical Sciences I	4
MOAP 135	Basic Medical Sciences II	4
MOAP 136	Introduction to Clinical Skills	2
MOAP 138	Medical Assisting Laboratory Skills	4
MOAP 140	Medical Assisting Clinical Skills	4
MOAP 147	Medical Terminology	1
MOAP 148	Introduction to Human Disease	3
MOAP 150	Pharmacology for Medical Assistants	3
MOAP 183	Medical Assistant Internship	5
MOAP 189	Review for Medical Assistant National Exam	1
SPCH 101	Interpersonal Communication	3
Total Semester Credit Hours		**44**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
MOAP 110	Medical Office Administration	4
MOAP 111	Introduction to Medical Assisting	3
ENGL 111	English Composition I-GTCO1	3
KINE 100	Health and Wellness	1
Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
KINA 1XX	Activity	1
	Semester Credit Hours	**15**
Spring Semester		
MOAP 133	Basic Medical Sciences I	4
MOAP 147	Medical Terminology	1
ENGL 112	English Composition II-GTCO2	3
MATH 107	Career Math	3
Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
	Semester Credit Hours	**14**
Second Year		
Fall Semester		
MOAP 135	Basic Medical Sciences II	4
MOAP 136	Introduction to Clinical Skills	2
MOAP 138	Medical Assisting Laboratory Skills	4
MOAP 150	Pharmacology for Medical Assistants	3
	Semester Credit Hours	**13**
Spring Semester		
MOAP 130	Medical Office Administration Insurance Billing and Coding	3
MOAP 140	Medical Assisting Clinical Skills	4
MOAP 148	Introduction to Human Disease	3
SPCH 101	Interpersonal Communication	3
	Semester Credit Hours	**13**
Summer Semester		
MOAP 183	Medical Assistant Internship	5
MOAP 189	Review for Medical Assistant National Exam	1
	Semester Credit Hours	**6**
	Total Semester Credit Hours	**61**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the “Intent to Graduate” form to the Registrar’s Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's “Intent to Graduate” does not automatically move to a later graduation date.

Medical Office Assistant (Technical Certificate)

Award: Technical Certificate
Program of Study: Medical Office Assistant
Program Code: 1158

This program prepares individuals to perform routine clinical and administrative functions in health care facilities, primarily medical clinics or physician’s offices. Students successfully completing this program will be able to perform the administrative tasks of a medical receptionist and work in the clinical areas by providing assistance with physical examinations, diagnostic tests and treatment procedures.

All students successfully completing the program are eligible to take the national certification examination offered by the American Medical Technologists, a national certifying agency, to become a Registered Medical Assistant.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Use program-level mathematical concepts and methods to understand, analyze, and explain medical assistant issues in quantitative terms. (Quantitative Fluency)
2. Locate, gather and organize evidence on an assigned medical topic. (Specialized Knowledge)
3. Identify and gather the information/data relevant to coding and billing as well as patient preparation in a medical office. (Critical Thinking)
4. Make and defend claims in a well-organized, professional and/or oral presentation appropriate for a patient and/or medical office. (Communication Fluency)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than “C” will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Specific to this degree:

- 41 semester hours for the Technical Certificate in Medical Office Assistant.

Program Specific Certificate Requirements

(41 semester hours, must earn a grade of “C” or better in each course.)

Code	Title	Semester Credit Hours
MOAP 110	Medical Office Administration	4
MOAP 111	Introduction to Medical Assisting	3

MOAP 130	Medical Office Administration Insurance Billing and Coding	3
MOAP 133	Basic Medical Sciences I	4
MOAP 135	Basic Medical Sciences II	4
MOAP 136	Introduction to Clinical Skills	2
MOAP 138	Medical Assisting Laboratory Skills	4
MOAP 140	Medical Assisting Clinical Skills	4
MOAP 147	Medical Terminology	1
MOAP 148	Introduction to Human Disease	3
MOAP 150	Pharmacology for Medical Assistants	3
MOAP 183	Medical Assistant Internship	5
MOAP 189	Review for Medical Assistant National Exam	1
Total Semester Credit Hours		**41**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
MOAP 110	Medical Office Administration	4
MOAP 111	Introduction to Medical Assisting	3
MOAP 133	Basic Medical Sciences I	4
MOAP 136	Introduction to Clinical Skills	2
MOAP 138	Medical Assisting Laboratory Skills	4
MOAP 147	Medical Terminology	1
	Semester Credit Hours	**18**
Spring Semester		
MOAP 130	Medical Office Administration Insurance Billing and Coding	3
MOAP 135	Basic Medical Sciences II	4
MOAP 140	Medical Assisting Clinical Skills	4
MOAP 148	Introduction to Human Disease	3
MOAP 150	Pharmacology for Medical Assistants	3
	Semester Credit Hours	**17**
Summer Semester		
MOAP 183	Medical Assistant Internship	5
MOAP 189	Review for Medical Assistant National Exam	1
	Semester Credit Hours	**6**
	Total Semester Credit Hours	**41**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Music

Program Description

The Bachelor of Music with Elective Studies in Business is designed for students who desire a career within the music industry. The comprehensive core curriculum in music includes courses in theory, history, literature, music technology, improvisation, applied study on the major instrument or voice, and ensemble performance. Also included are specialized courses in Music Industry and Marketing, Entrepreneurship, Arts Management, Electronic Music, and Advanced Music Technology. Required business courses include options in the areas of Marketing, Management, Accounting, Economics, and the Legal Environment of Business. Finally, an internship component provides the opportunity for students to gain real-world experience in the music industry areas of their choice. Professional success in the musical arts requires a comprehensive understanding of the new business models at work in our digital world. Our program seeks to provide this up-to-date information to enhance success for the student at every level.

The Bachelor of Music Performance is designed for those students who desire a performance-focused career. A strong core curriculum of musicianship courses includes music theory, history, literature, pedagogy, ensemble performance, and applied study. These courses develop the student's abilities and prepare them to perform in a plethora of venues. As a musician in the 21st Century, this degree also seeks to create excellent performers who create their own future. This program will train musicians with professional skills to make their own opportunities, shape their careers like entrepreneurs, produce their own performances, collaborate with artists from other genres and art forms and perform at a high artistic level. Training in the following areas will assist performers to create a meaningful career in music: identifying entrepreneurial opportunities in music and the creative sector, interdisciplinary collaborations, e-marketing your music, creating an artist's digital portfolio, video marketing, and independent business website.

The Music Education K-12 degree provides students with the knowledge, skills, and musicianship to become successful music educators in their intended career path (instrumental, vocal/choral, elementary music). Based on area of specialization, a student will choose Option 1: Instrumental and Keyboard Focus, or Option 2: Vocal Focus. Within these options, students take specific courses appropriate to their specialization in literature, instrumental techniques, advanced conducting, and teaching special ensembles. In addition to instrumental methods and two instrumental techniques courses, vocal majors take two courses in diction and vocal pedagogy to strengthen their knowledge and skill in the vocal/choral area of specialization.

The Bachelor of Arts in Music is a liberal arts degree with a breadth of general studies in English, Math, Humanities, Natural Sciences, History, Social and Behavioral Sciences and Fine Arts. Combined with courses in music theory, music history and literature, ensembles and applied studies, this curriculum provides a strong foundation that is integrated with 25 course credits of the student's choosing, allowing the flexibility to creatively design a personalized degree program. Students in this major have the ability to create a curriculum tailored to their strengths and career interests that can focus on traditional music, contemporary commercial music, their own musical compositions, or an interdisciplinary program of study designed by the student.

The Bachelor of Arts in Music: Liberal Arts (Commercial Music) is a liberal arts degree focused on commercial music with a breadth of general studies in English, math, humanities, natural sciences, history, social and behavioral sciences and fine arts. Combined with courses in music business, music theory, contemporary music history and literature, commercial ensembles and applied studies, this curriculum provides a strong foundation as well as courses specifically tailored to commercial and jazz music.

The Minor in Instrumental Music offers students in other majors the opportunity to stay involved with music in college, gaining experience and skills in music lessons, ensembles, and academics. The minor includes three years of ensembles and lessons on an applied instrument; academic courses in music theory, appreciation, and literature; as well as an upper division elective.

The Vocal Music Minor provides training and performance opportunities for students seeking music development in voice as their secondary area of study. Fundamental studies in piano, music reading and theory, two years of voice lessons, three years of performing in choral ensembles, studies in diction and conducting, and performance training in opera scenes comprise this minor. Audition for acceptance into the Vocal Minor is required.

The Jazz Studies Music Minor provides the opportunity for students to obtain a comprehensive set of fundamental skills in the jazz area, including large-ensemble performance, small-group performance, improvisation, composition and arranging, history and literature, and private instruction. Music majors who add this minor will broaden their skill set and marketability beyond the classical music area, and non-music majors may add this minor as a secondary area of study. Entrance to the Jazz Studies Music Minor requires an audition and prior jazz experience.

Special Requirements

Students seeking admittance as a music major or minor must pass a performance audition, a music theory placement exam, and a piano proficiency assessment. Admission to Colorado Mesa University does not guarantee admission into a music degree program. Prospective music majors should consult the Department of Music's website or contact the Department of Music for information about audition material and scheduling an audition with the faculty in their area of interest. Following the audition, students will be notified of audition results.

Contact Information

Department of Music
Moss Performing Arts Center 141
970.248.1233

Programs of Study Bachelors/Minors

- Education: Music Education K-12 (BME) (p. 647)
- Music Performance: Instrumental (BM) (p. 633)
- Music Performance: Keyboard (BM) (p. 636)
- Music Performance: Vocal (BM) (p. 640)
- Music with Elective Studies in Business (BM) (p. 643)
- Music: Commercial Music (BA) (p. 630)
- Music: Instrumental (Minor) (p. 655)
- Music: Jazz Studies (Minor) (p. 654)

- Music: Liberal Arts (BA) (p. 627)
- Music: Vocal (Minor) (p. 656)

Music: Liberal Arts (BA)

Degree: Bachelor of Arts
Major: Music
Concentration: Liberal Arts
Program Code: 3253

The Bachelor of Arts in Music is a liberal arts degree with a breadth of general studies in English, math, humanities, natural sciences, history, social and behavioral sciences and fine arts. Combined with courses in music theory, music history and literature, ensembles and applied studies, this curriculum provides a strong foundation that when innovatively integrated with additional credits of the student's choosing, allows the flexibility to creatively design a personalized degree program. Students in this major have the ability to create a curriculum tailored to their strengths and career interests that can focus on traditional music, contemporary-commercial music, their own musical compositions or an interdisciplinary program of study, designed by the student.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Construct and present a summative project that draws on current research, scholarship and/or techniques, and specialized knowledge in music (specialized knowledge/applied learning)
2. Develop musical interpretations using musical analysis (quantitative fluency)
3. Explain knowledge of music history in presentations (communication fluency)
4. Develop musical interpretations through solo performances (critical thinking)
5. Demonstrate musical professionalism through ethical conduct, reflection, and leadership (personal and social responsibility)
6. Find relevant sources of information, evaluate information critically, and apply the information appropriately and effectively to musical purposes (information literacy)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

- Some Essential Learning credits will have to be completed in the junior year.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 110	Mathematical Investigations-GTMA1	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3

Select one Social and Behavioral Sciences course	3
Fine Arts	
Select one Fine Arts course	3
Natural Sciences [2]	
Select one Natural Sciences course	3
Select one Natural Sciences course with a lab	4
Total Semester Credit Hours	**31**

[1] Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

[2] One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(26 semester hours, must pass all courses with a "C" or better)

Code	Title	Semester Credit Hours
MUSA 111	Music Technology	1
MUSA 114	Theory I-Introduction	3
MUSA 115	Theory II-Diatonic Concepts	3
MUSA 116	Ear Training and Sightsinging I	2
MUSA 117	Ear Training and Sightsinging II	2
MUSA 130	Class Piano I	1
MUSA 131	Class Piano II	1
MUSA 214	Theory III - Chromatic Concepts	3
MUSA 215	Theory IV - Twentieth Century Form and Analysis	3
MUSA 230	Class Piano III	1
MUSL 1__	Music Lesson	1
MUSL 1__	Music Lesson	1
MUSL 2__	Music Lesson	1
MUSP 1__	Music Performance	1
MUSP 1__	Music Performance	1
MUSP 2__	Music Performance	1
Total Semester Credit Hours		**26**

Program Specific Degree Requirements

(34 semester hours, must pass all courses with a "C" or better and maintain a 2.0 cumulative GPA or higher in coursework in this area.)

- Students are assessed for piano proficiency upon admission to the Department of Music. Students who need additional preparation to be successful in piano will be required to enroll in MUSA 125: Foundations of Piano (1) during their first semester.
- Students must meet departmental recital/concert attendance requirements.
- Students must pay close attention to the Department's two-year course rotation.

Code	Title	Semester Credit Hours
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 250	Beginning Conducting	1
Select one of the following:		3
MUSA 303	Symphonic Literature	
MUSA 305	Keyboard Literature	
MUSA 318	Vocal Literature	
MUSA 319	Choral Literature	
MUSA 326	Music History and Literature I	3
MUSA 327	Music History and Literature II	3
MUSA 426	The Music of World Cultures	2
MUSL 2__	Music Lesson	1
MUSL 3__	Music Lesson	1
MUSL 3__	Music Lesson	1
MUSL 4__	Music Lesson	1
MUSL 4__	Music Lesson	1
MUSP 2__	Music Performance	1
MUSP 3__	Music Performance	1
MUSP 3__	Music Performance	1
MUSP 4__	Music Performance	1
MUSP 4__	Music Performance	1
MUSP 420	Senior Recital/Presentation	1
Upper Division Music Electives		
Select from any 300- or 400-level MUSA, MUSL, or MUSP courses		5
Foreign Language		
Two consecutive courses in the same foreign language [1]		6
Total Semester Credit Hours		**34**

[1] Must receive a grade of "C" or better.

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours. 23 semester hours, at least 15 upper division hours will be needed.

Code	Title	Semester Credit Hours
Select electives		23
Total Semester Credit Hours		**23**

Suggested Course Plan

While the total semester hours below reads 120-122, students in this program actually complete 120 hours for degree requirements. This variation in the total hours is due to differences in rotation courses that appear multiple times.

First Year		
Fall Semester		**Semester Credit Hours**
MUSA 101	Concert Attendance	0
MUSA 114	Theory I-Introduction	3
MUSA 116	Ear Training and Sightsinging I	2
MUSA 111	Music Technology	1
MUSL 1__	Music Lesson	1
MUSP 1__	Music Performance	1
ENGL 111	English Composition I-GTCO1	3
Essential Learning - Social and Behavioral Science		3
	Semester Credit Hours	**14**
Spring Semester		
MUSA 101	Concert Attendance	0
MUSA 115	Theory II-Diatonic Concepts	3
MUSA 117	Ear Training and Sightsinging II	2
MUSA 130	Class Piano I	1
MUSL 1__	Music Lesson	1
MUSP 1__	Music Performance	1
ENGL 112	English Composition II-GTCO2	3
KINE 100	Health and Wellness	1
Essential Learning - Social and Behavioral Science		3
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
MUSA 101	Concert Attendance	0
MUSA 131	Class Piano II	1
MUSA 214	Theory III - Chromatic Concepts	3
MUSL 2___	Music Lesson	1
MUSP 2___	Music Performance	1
Essential Learning - Natural Science with Lab		4
MATH 110	Mathematical Investigations-GTMA1	3
General Elective		3
	Semester Credit Hours	**16**
Spring Semester		
MUSA 101	Concert Attendance	0
MUSA 215	Theory IV - Twentieth Century Form and Analysis (Essential Learning - Natural Science)	3
MUSA 230	Class Piano III	1
MUSA 250	Beginning Conducting	1
MUSL 2__	Music Lesson	1
MUSP 2__	Music Performance	1
KINA Activity		1
Essential Learning - Fine Arts		3
Essential Learning - Natural Science		3
General Elective		3
	Semester Credit Hours	**17**
Third Year		
Fall Semester		
MUSA 101	Concert Attendance	0
MUSL 3__	Music Lesson	1
MUSP 3__	Music Performance	1
Essential Learning - History		3
Foreign Language Course		3
General Elective		3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Upper Division Music Elective		3
	Semester Credit Hours	**18**
Spring Semester		
MUSA 101	Concert Attendance	0
Music Literature Course		3
MUSL 3__	Music Lesson	1
MUSP 3__	Music Performance	1
Foreign Language Course		3
Select one of the following:		2-3
Upper Division Music Elective		
MUSA 426	The Music of World Cultures	
General Electives (2 courses)		6
	Semester Credit Hours	**16-17**
Fourth Year		
Fall Semester		
MUSA 101	Concert Attendance	0
MUSL 4__	Music Lesson	1
MUSP 4__	Music Performance	1
MUSA 326	Music History and Literature I	3
Essential Learning - Humanities		3
General Electives		4
	Semester Credit Hours	**12**
Spring Semester		
MUSA 101	Concert Attendance	0
MUSL 4__	Music Lesson	1
MUSP 4__	Music Performance	1
Select one of the following:		2-3
MUSA 426	The Music of World Cultures	
Upper Division Music Elective		
MUSA 327	Music History and Literature II	3
MUSP 420	Senior Recital/Presentation	1
General Elective		4
	Semester Credit Hours	**12-13**
	Total Semester Credit Hours	**120-122**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It

is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Music: Commercial Music (BA)

Degree: Bachelor of Arts
Major: Music
Concentration: Commercial Music
Program Code: 3288

The Bachelor of Arts in Music: Commercial Music is a liberal arts degree focused on jazz and commercial music with a breadth of general studies in English, math, humanities, natural sciences, history, social and behavioral sciences and fine arts. Combined with courses in music business, music theory, contemporary music history and literature, commercial ensembles and applied studies, this curriculum provides a strong foundation as well as courses specifically tailored to jazz and commercial music.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Construct and present a summative project that draws on current research, scholarship and/or techniques, and specialized knowledge in music (specialized knowledge/applied learning)
2. Develop musical interpretations using musical analysis (quantitative fluency)
3. Explain knowledge of music history in presentations (communication fluency)
4. Develop musical interpretations through solo performances (critical thinking)
5. Demonstrate musical professionalism through ethical conduct, reflection, and leadership (personal and social responsibility)
6. Find relevant sources of information, evaluate information critically, and apply the information appropriately and effectively to musical purposes (information literacy)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

- Some Essential Learning credits will have to be completed in the junior year.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 110	Mathematical Investigations-GTMA1	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [2]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

[1] Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

[2] One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(26 semester hours, must pass all courses with a "C" or better)

Code	Title	Semester Credit Hours
MUSA 111	Music Technology	1
MUSA 114	Theory I-Introduction	3
MUSA 115	Theory II-Diatonic Concepts	3
MUSA 116	Ear Training and Sightsinging I	2
MUSA 117	Ear Training and Sightsinging II	2
MUSA 130	Class Piano I	1
MUSA 131	Class Piano II	1
MUSA 214	Theory III - Chromatic Concepts	3
MUSA 215	Theory IV - Twentieth Century Form and Analysis	3
MUSA 230	Class Piano III	1
MUSL 139	Jazz/Commercial	1
MUSL 139	Jazz/Commercial	1
MUSL 239	Jazz/Commercial	1
MUSP 162	Commercial Ensemble	1
MUSP 162	Commercial Ensemble	1
MUSP 262	Commercial Ensemble	1
Total Semester Credit Hours		**26**

Program Specific Degree Requirements

(49 semester hours, must pass all courses with a "C" or better and maintain a 2.0 cumulative GPA or higher in coursework in this area.)

- Students must complete eight semesters of Music Lessons (MUSL), two at each academic level.
- Students deficient in piano skills will be required to complete MUSA 130 (2), MUSA 131 (2), MUSA 230 (2), and/or MUSA 231 (2), in the first two years.
- Students must meet departmental recital/concert attendance requirements.
- Students must pay close attention to the Department's two-year course rotation.

Code	Title	Semester Credit Hours
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 250	Beginning Conducting	1
MUSA 262	Commercial Arranging	1
MUSA 266	History of Popular Music-GTAH1	3
MUSA 268	Beginning Jazz Improvisation	1
MUSA 267	Jazz History and Literature-GTAH1	3
MUSA 311	Advanced Music Technology	2

MUSA 312	Electronic Music	2
MUSA 317	Applied Orchestration and Arranging	2
MUSA 363	Music Industry and Marketing	2
MUSA 365	Entrepreneurship for Creatives	2
MUSA 367	Arts Management	2
MUSA 368	Advanced Jazz Improvisation	2
MUSA 426	The Music of World Cultures	2
MUSL 338	Composition	1
MUSL 438	Composition	1
MUSL 239	Jazz/Commercial	1
MUSL 339	Jazz/Commercial	1
MUSL 339	Jazz/Commercial	1
MUSL 439	Jazz/Commercial	1
MUSL 439	Jazz/Commercial	1
MUSP 262	Commercial Ensemble	1
MUSP 362	Commercial Ensemble	1
MUSP 362	Commercial Ensemble	1
MUSP 462	Commercial Ensemble	1
MUSP 462	Commercial Ensemble	1
MUSP 420	Senior Recital/Presentation	1
Upper Division Music Electives		
Select from any 300- or 400-level MUSA, MUSL, or MUSP courses		5
Foreign Language		
Two consecutive courses in the same foreign language		6
Total Semester Credit Hours		**49**

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours, including 40 hours of upper division hours. 8 semester hours; up to 8 semester hours of upper division may be needed.

Code	Title	Semester Credit Hours
Select electives		8
(8 elective hours must be Upper Division)		
Total Semester Credit Hours		**8**

Suggested Course Plan

First Year

Fall Semester		**Semester Credit Hours**
MUSA 101	Concert Attendance	0
MUSA 114	Theory I-Introduction	3
MUSA 116	Ear Training and Sightsinging I	2
MUSA 111	Music Technology	1
MUSL 139	Jazz/Commercial	1
MUSP 162	Commercial Ensemble	1
ENGL 111	English Composition I-GTCO1	3
Essential Learning - Social and Behavioral Science		3
	Semester Credit Hours	**14**
Spring Semester		
MUSA 101	Concert Attendance	0
MUSA 115	Theory II-Diatonic Concepts	3
MUSA 117	Ear Training and Sightsinging II	2
MUSA 130	Class Piano I	1
MUSL 139	Jazz/Commercial	1
MUSP 162	Commercial Ensemble	1
ENGL 112	English Composition II-GTCO2	3
KINE 100	Health and Wellness	1
Essential Learning - Social and Behavioral Science		3
	Semester Credit Hours	**15**

Second Year

Fall Semester		
MUSA 101	Concert Attendance	0
MUSA 131	Class Piano II	1
MUSA 214	Theory III - Chromatic Concepts	3
MUSL 239	Jazz/Commercial	1
MUSP 262	Commercial Ensemble	1
Essential Learning - Natural Science with Lab		4
MATH 110	Mathematical Investigations-GTMA1	3
MUSA 311 or MUSA 312	Advanced Music Technology or Electronic Music	2
MUSA 268	Beginning Jazz Improvisation	1
	Semester Credit Hours	**16**
Spring Semester		
MUSA 101	Concert Attendance	0
MUSA 215	Theory IV - Twentieth Century Form and Analysis	3
MUSA 230	Class Piano III	1
MUSA 250	Beginning Conducting	1
MUSA 262	Commercial Arranging	1
Select one of the following:		2
MUSA 365	Entrepreneurship for Creatives	
MUSA 368	Advanced Jazz Improvisation	
MUSA 426	The Music of World Cultures	
MUSL 239	Jazz/Commercial	1
MUSP 262	Commercial Ensemble	1
KINA Activity		1
Essential Learning - Natural Science		3
	Semester Credit Hours	**14**

Third Year

Fall Semester		
MUSA 101	Concert Attendance	0
MUSL 339	Jazz/Commercial	1
MUSP 362	Commercial Ensemble	1
MUSA 317	Applied Orchestration and Arranging	2
MUSA 311 or MUSA 312	Advanced Music Technology or Electronic Music	2
MUSA 363 or MUSA 367	Music Industry and Marketing or Arts Management	2
MUSL 338	Composition	1
ESSL 200	Essential Speech	1
ESSL 290	Maverick Milestone	3
Foreign Language Course		3
	Semester Credit Hours	**16**
Spring Semester		
MUSA 101	Concert Attendance	0
MUSL 339	Jazz/Commercial	1
MUSP 362	Commercial Ensemble	1
Select one of the following:		2
MUSA 365	Entrepreneurship for Creatives	
MUSA 368	Advanced Jazz Improvisation	
MUSA 426	The Music of World Cultures	
MUSA 267	Jazz History and Literature-GTAH1	3
Foreign Language Course		3
Essential Learning - History		3

Essential Learning - Humanities		3
	Semester Credit Hours	**16**
Fourth Year		
Fall Semester		
MUSA 101	Concert Attendance	0
MUSA 266	History of Popular Music-GTAH1	3
MUSA 363 or MUSA 367	Music Industry and Marketing or Arts Management	2
MUSL 438	Composition	1
MUSL 439	Jazz/Commercial	1
MUSP 462	Commercial Ensemble	1
Upper Division Music Elective		2
General Electives		4
	Semester Credit Hours	**14**
Spring Semester		
MUSA 101	Concert Attendance	0
MUSL 439	Jazz/Commercial	1
MUSP 462	Commercial Ensemble	1
Select one of the following:		2
MUSA 365	Entrepreneurship for Creatives	
MUSA 368	Advanced Jazz Improvisation	
MUSA 426	The Music of World Cultures	
Upper Division Music Elective		3
MUSP 420	Senior Recital/Presentation	1
Essential Learning - Fine Arts		3
General Electives		4
	Semester Credit Hours	**15**
	Total Semester Credit Hours	**120**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Music Performance: Instrumental (BM)

Degree: Bachelor of Music
Major: Music Performance – Instrumental Performance
Program Code: 3285

The Bachelor of Music Performance is designed for those students who desire a performance-focused career. A strong core curriculum of musicianship courses includes music theory, history, literature, pedagogy, ensemble performance, and applied study. These courses develop the student's abilities and prepare them to perform in a plethora of venues. As a musician in the 21st Century, this degree also seeks to create excellent performers who create their own future. This program will train musicians with professional skills to make their own opportunities, shape their careers like entrepreneurs, produce their own performances, collaborate with artists from other genres and art forms, and perform at a high artistic level. Training in the following areas will assist performers to create a meaningful career in music: identifying entrepreneurial opportunities in music and the creative sector, interdisciplinary collaborations, e-marketing your music, creating an artist's digital portfolio, video marketing, and independent business website.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Create a digital portfolio that demonstrates experience with your instrument and reflects current trends in the music profession (Applied Learning)
2. Develop musical interpretations using musical analysis (Quantitative Fluency)
3. Explain knowledge of music history in presentations (Specialized Knowledge)
4. Develop musical interpretations through solo performances (Critical Thinking)
5. Demonstrate professionalism through ethical conduct, reflection, and leadership (Personal and Social Responsibility)
6. Find relevant sources of information, evaluate information critically, and apply the information appropriately and effectively to specific purposes (Information Literacy)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 110	Mathematical Investigations-GTMA1	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [2]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

[1] Must receive a grade of “C” or better and must be completed by the time the student has 60 semester hours.

[2] One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(27 semester hours, must pass each course with a grade of "C" or better.)

Code	Title	Semester Credit Hours
MUSA 111	Music Technology	1
MUSA 114	Theory I-Introduction	3
MUSA 115	Theory II-Diatonic Concepts	3
MUSA 116	Ear Training and Sightsinging I	2
MUSA 117	Ear Training and Sightsinging II	2
MUSA 130	Class Piano I	1
MUSA 131	Class Piano II	1
MUSA 214	Theory III - Chromatic Concepts	3
MUSA 215	Theory IV - Twentieth Century Form and Analysis	3
MUSA 230	Class Piano III	1
MUSL 1__	Music Lesson	2
MUSL 1__	Music Lesson	2
MUSP 1__	Music Performance	1

MUSP 1__	Music Performance	1
MUSP 2__	Music Performance	1
Total Semester Credit Hours		**27**

Program Specific Degree Requirements

(53 semester hours, must pass all courses with a "C" or better and maintain a 2.0 cumulative GPA or higher in coursework in this area.)

- Students are assessed for piano proficiency upon admission to the Department of Music. Students who need additional preparation to be successful in piano will be required to enroll in MUSA 125: Foundations of Piano (1) during their first semester.

Code	Title	Semester Credit Hours
Music Core		
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 250	Beginning Conducting	1
MUSA 258	Introduction to Improvisation	1
MUSA 268	Beginning Jazz Improvisation	1
MUSA 311	Advanced Music Technology	2
MUSA 317	Applied Orchestration and Arranging	2
MUSA 326	Music History and Literature I	3
MUSA 327	Music History and Literature II	3
MUSA 363	Music Industry and Marketing	2
Select one of the following Music Business Electives:		2
MUSA 312	Electronic Music	
MUSA 365	Entrepreneurship for Creatives	
MUSA 367	Arts Management	
MUSA 426	The Music of World Cultures	2
MUSL 2__	Music Lesson	2
MUSL 2__	Music Lesson	2
MUSL 3__	Music Lesson	2
MUSL 3__	Music Lesson	2
MUSL 4__	Music Lesson	2
MUSL 4__	Music Lesson	2
MUSP 2__	Music Performance	1
MUSP 3__	Music Performance	1
MUSP 3__	Music Performance	1
MUSP 4__	Music Performance	1
MUSP 4__	Music Performance	1
MUSP 320	Junior Recital	1
MUSP 420	Senior Recital/Presentation	1
Foreign Language		
One course in any foreign language		3
Instrumental Performance		
MUSA 303	Symphonic Literature	3
MUSL 340	Instrumental Pedagogy and Literature	1
MUSL 340	Instrumental Pedagogy and Literature	1
Select 4 semester hours chosen from the following Restricted Electives:		4
MUSA 368	Advanced Jazz Improvisation	
MUSA 350B	Advanced Conducting: Instrumental	
MUSP 3__	Upper Division Music Performance Ensemble	
MUSP 4__	Upper Division Music Performance Ensemble	
Select 3 semester hours chosen from Fine and Performing Arts, must be outside of the concentration		3
Total Semester Credit Hours		**53**

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours, including 40 upper-division hours. 3 semester hours, including 1 upper-division hour.

Code	Title	Semester Credit Hours
Select electives		3
Total Semester Credit Hours		**3**

Suggested Course Plan

While the total semester hours below reads 119-121, students must complete a minimum of 120 hours for this degree. This variation is due to different options for vocal and instrumental students, which results in varying potential credit hours by semester. Students should work with their advisor to make sure the correct number of Music Elective hours are completed depending on the course selected to complete this requirement.

First Year		
Fall Semester		**Semester Credit Hours**
MUSA 101	Concert Attendance	0
MUSA 111	Music Technology	1
MUSA 114	Theory I-Introduction	3
MUSA 116	Ear Training and Sightsinging I	2
MUSL 1__	Music Lesson	2
MUSP 1__	Music Performance	1
MATH 110	Mathematical Investigations-GTMA1	3
ENGL 111	English Composition I-GTCO1	3
	Semester Credit Hours	**15**
Spring Semester		
MUSA 101	Concert Attendance	0
MUSA 115	Theory II-Diatonic Concepts	3
MUSA 117	Ear Training and Sightsinging II	2
MUSA 130	Class Piano I	1
MUSL 1__	Music Lesson	2
MUSP 1__	Music Performance	1
ENGL 112	English Composition II-GTCO2	3
Essential Learning - Fine Arts		3
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
MUSA 101	Concert Attendance	0

MUSA 131	Class Piano II	1
MUSA 214	Theory III - Chromatic Concepts	3
MUSA 258	Introduction to Improvisation	1
MUSL 2__	Music Lesson	2
MUSP 2__	Music Performance	1
Essential Learning - Natural Science with Lab		4
Essential Learning - History		3
Fine Arts Course (Outside Music)		3
	Semester Credit Hours	**18**
Spring Semester		
MUSA 101	Concert Attendance	0
MUSA 215	Theory IV - Twentieth Century Form and Analysis	3
MUSA 230	Class Piano III	1
MUSA 250	Beginning Conducting	1
MUSL 2__	Music Lesson	2
MUSP 2__	Music Performance	1
Essential Learning - Natural Science		3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
KINA Activity		1
	Semester Credit Hours	**16**
Third Year		
Fall Semester		
MUSA 101	Concert Attendance	0
MUSA 268	Beginning Jazz Improvisation	1
MUSA 317	Applied Orchestration and Arranging	2
MUSA 326	Music History and Literature I	3
MUSL 340	Instrumental Pedagogy and Literature	1
MUSL 3__	Music Lesson	2
MUSP 3__	Music Performance	1
Restricted Electives		2
Select one of the following:		2
MUSA 363	Music Industry and Marketing	
Music Business Elective		
	Semester Credit Hours	**14**
Spring Semester		
MUSA 101	Concert Attendance	0
MUSA 303 or MUSA 426	Symphonic Literature or The Music of World Cultures	2-3
MUSA 327	Music History and Literature II	3
MUSP 320	Junior Recital	1
MUSL 340	Instrumental Pedagogy and Literature	1
Restricted Electives		2
MUSL 3__	Music Lesson	2
MUSP 3__	Music Performance	1
Foundation Course - Foreign Language		3
	Semester Credit Hours	**15-16**
Fourth Year		
Fall Semester		
MUSA 101	Concert Attendance	0
MUSL 4__	Music Lesson	2
MUSP 4__	Music Performance	1
MUSA 311	Advanced Music Technology	2
Essential Learning – Humanities		3
Essential Learning – Social and Behavioral Sciences		3
KINE 100	Health and Wellness	1
Upper Division General Electives		1
Select one of the following:		2
MUSA 363	Music Industry and Marketing	
Music Business Elective		
	Semester Credit Hours	**15**
Spring Semester		
MUSA 101	Concert Attendance	0
MUSA 303 or MUSA 426	Symphonic Literature or The Music of World Cultures	2-3
Essential Learning - Social and Behavioral Sciences		3
MUSL 4__	Music Lesson	2
MUSP 4__	Music Performance	1
MUSP 420	Senior Recital/Presentation	1
General Electives		2
	Semester Credit Hours	**11-12**
	Total Semester Credit Hours	**119-121**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

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Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
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- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Music Performance: Keyboard (BM)

Degree: Bachelor of Music
Major: Music Performance – Keyboard Performance
Program Code: 3286

The Bachelor of Music Performance is designed for those students who desire a performance-focused career. A strong core curriculum of musicianship courses includes music theory, history, literature,

pedagogy, ensemble performance, and applied study. These courses develop the student's abilities and prepare them to perform in a plethora of venues. As a musician in the 21st Century, this degree also seeks to create excellent performers who create their own future. This program will train musicians with professional skills to make their own opportunities, shape their careers like entrepreneurs, produce their own performances, collaborate with artists from other genres and art forms and perform at a high artistic level. Training in the following areas will assist performers to create a meaningful career in music: identifying entrepreneurial opportunities in music and the creative sector, interdisciplinary collaborations, e-marketing your music, creating an artist's digital portfolio, video marketing, and independent business website.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Create a digital portfolio that demonstrates experience with your instrument and reflects current trends in the music profession. (Applied Learning)
2. Develop musical interpretations using musical analysis. (Quantitative Fluency)
3. Explain knowledge of music history in presentations.(Communication Fluency)
4. Develop musical interpretations through solo performances. (Critical Thinking)
5. Demonstrate professionalism through ethical conduct, reflection, and leadership. (Personal and Social Responsibility)
6. Find relevant sources of information, evaluate information critically, and apply the information appropriately and effectively to specific purposes. (Information Literacy)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

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- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 110	Mathematical Investigations-GTMA1	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [2]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

[1] Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

[2] One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(27 semester hours, must pass each course with a "C" or better.)

Code	Title	Semester Credit Hours
MUSA 111	Music Technology	1
MUSA 114	Theory I-Introduction	3
MUSA 115	Theory II-Diatonic Concepts	3
MUSA 116	Ear Training and Sightsinging I	2
MUSA 117	Ear Training and Sightsinging II	2
MUSA 130	Class Piano I	1
MUSA 131	Class Piano II	1
MUSA 214	Theory III - Chromatic Concepts	3
MUSA 215	Theory IV - Twentieth Century Form and Analysis	3
MUSA 230	Class Piano III	1
MUSL 1__	Music Lesson	2
MUSL 1__	Music Lesson	2
MUSP 1__	Music Performance	1
MUSP 1__	Music Performance	1
MUSP 2__	Music Performance	1
Total Semester Credit Hours		**27**

Program Specific Degree Requirements

(55 semester hours, must pass each course with a "C" or better and maintain a 2.0 cumulative GPA or higher in coursework in this area.)

- Students are assessed for piano proficiency upon admission to the Department of Music. Students who need additional preparation to be successful in piano will be required to enroll in MUSA 125: Foundations of Piano (1) during their first semester.

Code	Title	Semester Credit Hours
Music Core		
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 250	Beginning Conducting	1
MUSA 258	Introduction to Improvisation	1
MUSA 268	Beginning Jazz Improvisation	1
MUSA 311	Advanced Music Technology	2
MUSA 317	Applied Orchestration and Arranging	2
MUSA 326	Music History and Literature I	3
MUSA 327	Music History and Literature II	3
MUSA 363	Music Industry and Marketing	2
Select one of the following Music Business Electives:		2
MUSA 312	Electronic Music	
MUSA 365	Entrepreneurship for Creatives	
MUSA 367	Arts Management	
MUSA 426	The Music of World Cultures	2
MUSL 2__	Music Lesson	2
MUSL 2__	Music Lesson	2
MUSL 3__	Music Lesson	2
MUSL 3__	Music Lesson	2
MUSL 4__	Music Lesson	2
MUSL 4__	Music Lesson	2
MUSP 2__	Music Performance	1
MUSP 3__	Music Performance	1
MUSP 3__	Music Performance	1
MUSP 4__	Music Performance	1
MUSP 4__	Music Performance	1
MUSP 320	Junior Recital	1
MUSP 420	Senior Recital/Presentation	1
Foreign Language		
One course in any foreign language		3
Keyboard Performance		
MUSA 305	Keyboard Literature	3
MUSA 310	Accompanying Techniques	2
MUSL 340	Instrumental Pedagogy and Literature	1
MUSL 340	Instrumental Pedagogy and Literature	1
Select 4 semester hours chosen from the following Restricted Electives:		4
MUSA 368	Advanced Jazz Improvisation	
MUSA 350B	Advanced Conducting: Instrumental	
MUSP 3__	Upper Division Music Performance Ensemble	
MUSP 4__	Upper Division Music Performance Ensemble	
Select 3 semester hours from Fine and Performing Arts, must be outside of the concentration		3
Total Semester Credit Hours		**55**

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours. 1 semester hour.

Code	Title	Semester Credit Hours
Select electives		1
Total Semester Credit Hours		**1**

Suggested Course Plan

First Year

Fall Semester		Semester Credit Hours
MUSA 101	Concert Attendance	0
MUSA 111	Music Technology	1
MUSA 114	Theory I-Introduction	3
MUSA 116	Ear Training and Sightsinging I	2
MUSL 1__	Music Lesson	2
MUSP 1__	Music Performance	1
MATH 110	Mathematical Investigations-GTMA1	3
ENGL 111	English Composition I-GTCO1	3
	Semester Credit Hours	**15**
Spring Semester		
MUSA 101	Concert Attendance	0
MUSA 115	Theory II-Diatonic Concepts	3
MUSA 117	Ear Training and Sightsinging II	2
MUSA 130	Class Piano I	1
MUSL 1__	Music Lesson	2
MUSP 1__	Music Performance	1
ENGL 112	English Composition II-GTCO2	3
Essential Learning - Fine Arts		3
	Semester Credit Hours	**15**

Second Year

Fall Semester		
MUSA 101	Concert Attendance	0
MUSA 131	Class Piano II	1
MUSA 214	Theory III - Chromatic Concepts	3
MUSA 258	Introduction to Improvisation	1
MUSL 2__	Music Lesson	2
MUSP 2__	Music Performance	1
KINE 100	Health and Wellness	1
Essential Learning - History		3
General Elective		1
	Semester Credit Hours	**13**
Spring Semester		
MUSA 101	Concert Attendance	0
MUSA 215	Theory IV - Twentieth Century Form and Analysis	3
MUSA 230	Class Piano III	1
MUSA 250	Beginning Conducting	1
MUSL 2__	Music Lesson	2
MUSP 2__	Music Performance	1
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Essential Learning - Humanities		3
	Semester Credit Hours	**15**

Third Year

Fall Semester		
MUSA 101	Concert Attendance	0
MUSA 268	Beginning Jazz Improvisation	1
MUSA 326	Music History and Literature I	3
MUSL 3__	Music Lesson	2
MUSP 3__	Music Performance	1
MUSL 340	Instrumental Pedagogy and Literature	1
Select one of the following:		2
MUSA 363	Music Industry and Marketing	
Music Business Elective		
Foreign Language Course		3
Essential Learning - Social and Behavioral Sciences		3
	Semester Credit Hours	**16**
Spring Semester		
MUSA 101	Concert Attendance	0
MUSA 310	Accompanying Techniques	2
MUSA 327	Music History and Literature II	3
MUSL 3__	Music Lesson	2
MUSP 3__	Music Performance	1
MUSL 340	Instrumental Pedagogy and Literature	1
MUSP 320	Junior Recital	1
Essential Learning Natural Science with Lab		4
Restricted Electives		2
	Semester Credit Hours	**16**

Fourth Year

Fall Semester		
MUSA 101	Concert Attendance	0
MUSA 305	Keyboard Literature	3
MUSA 311	Advanced Music Technology	2
MUSA 317	Applied Orchestration and Arranging	2
MUSL 4__	Music Lesson	2
MUSP 4__	Music Performance	1
Select one of the following:		2
MUSA 363	Music Industry and Marketing	
Music Business Elective		
Fine Arts Elective		3
	Semester Credit Hours	**15**
Spring Semester		
MUSA 101	Concert Attendance	0
MUSA 426	The Music of World Cultures	2
MUSL 4__	Music Lesson	2
MUSP 4__	Music Performance	1
MUSP 420	Senior Recital/Presentation	1
Essential Learning - Natural Science		3
KINA Activity		1
Essential Learning - Social and Behavioral Sciences		3
Restricted Electives		2
	Semester Credit Hours	**15**
	Total Semester Credit Hours	**120**

Advising and Graduation Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It

is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Music Performance: Vocal (BM)

Degree: Bachelor of Music
Major: Music Performance – Vocal Performance
Program Code: 3287

The Bachelor of Music Performance is designed for those students who desire a performance-focused career. A strong core curriculum of musicianship courses includes music theory, history, literature, pedagogy, ensemble performance, and applied study. These courses develop the student's abilities and prepare them to perform in a plethora of venues. As a musician in the 21st Century, this degree also seeks to create excellent performers who create their own future. This program will train musicians with professional skills to make their own opportunities, shape their careers like entrepreneurs, produce their own performances, collaborate with artists from other genres and art forms and perform at a high artistic level. Training in the following areas will assist performers to create a meaningful career in music: identifying entrepreneurial opportunities in music and the creative sector, interdisciplinary collaborations, e-marketing your music, creating an artist's digital portfolio, video marketing, and independent business website.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Create a digital portfolio that demonstrates experience with your instrument and reflects current trends in the music profession. (Critical Thinking)
2. Develop musical interpretations using musical analysis. (Quantitative Fluency)
3. Explain knowledge of music history in presentations.(Communication Fluency)
4. Develop musical interpretations through solo performances. (Critical Thinking)
5. Demonstrate professionalism through ethical conduct, reflection, and leadership. (Personal and Social Responsibility)
6. Find relevant sources of information, evaluate information critically, and apply the information appropriately and effectively to specific purposes. (Information Literacy)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.

- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 110	Mathematical Investigations-GTMA1	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [2]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

[1] Must receive a grade of “C” or better and must be completed by the time the student has 60 semester hours.

[2] One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(26 semester hours, must pass each course with a “C” or better.)

Code	Title	Semester Credit Hours
MUSA 111	Music Technology	1
MUSA 114	Theory I-Introduction	3
MUSA 115	Theory II-Diatonic Concepts	3
MUSA 116	Ear Training and Sightsinging I	2
MUSA 117	Ear Training and Sightsinging II	2
MUSA 130	Class Piano I	1
MUSA 131	Class Piano II	1
MUSA 214	Theory III - Chromatic Concepts	3
MUSA 215	Theory IV - Twentieth Century Form and Analysis	3
MUSA 230	Class Piano III	1
MUSL 1__	Music Lesson	2
MUSL 1__	Music Lesson	1
MUSP 1__	Music Performance	1
MUSP 1__	Music Performance	1
MUSP 2__	Music Performance	1
Total Semester Credit Hours		**26**

Program Specific Degree Requirements

(55 semester hours, must pass each course with a “C” or better and maintain a 2.0 cumulative GPA or higher in coursework in this area.)

- Students are assessed for piano proficiency upon admission to the Department of Music. Students who need additional preparation to be successful in piano will be required to enroll in MUSA 125: Foundations of Piano (1) during their first semester.

Code	Title	Semester Credit Hours
Music Core		
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 129	Singer's Diction I: English and Italian	1
MUSA 210	Vocal Function and Basics	2
MUSA 229	Singer’s Diction II: German and French	1
MUSA 250	Beginning Conducting	1
MUSA 258	Introduction to Improvisation	1
MUSA 311	Advanced Music Technology	2
MUSA 317	Applied Orchestration and Arranging	2
MUSA 326	Music History and Literature I	3
MUSA 327	Music History and Literature II	3
MUSA 363	Music Industry and Marketing	2

Select one of the following Music Business Electives:		2
MUSA 312	Electronic Music	
MUSA 365	Entrepreneurship for Creatives	
MUSA 367	Arts Management	
MUSA 426	The Music of World Cultures	2
MUSL 2__	Music Lesson	2
MUSL 2__	Music Lesson	2
MUSL 3__	Music Lesson	2
MUSL 3__	Music Lesson	2
MUSL 4__	Music Lesson	2
MUSL 4__	Music Lesson	2
MUSP 2__	Music Performance	1
MUSP 3__	Music Performance	1
MUSP 3__	Music Performance	1
MUSP 4__	Music Performance	1
MUSP 4__	Music Performance	1
MUSP 320	Junior Recital	1
MUSP 420	Senior Recital/Presentation	1
Foreign Language		
One course in any foreign language		3
Vocal Performance		
MUSA 318	Vocal Literature	3
MUSA 410	Vocal Pedagogy	1
MUSP 365	Vocal Performance Workshop	1
MUSP 465	Opera Scenes	1
THEA 153	Acting I: Beginning Acting	3
Select two credits of the following Restricted Electives:		2
MUSA 350A	Advanced Conducting: Choral	
MUSA 350B	Advanced Conducting: Instrumental	
MUSP 356	Vocal Arts Ensemble	
MUSP 358	Soprano/Alto Choir	
MUSP 359	Vocal Chords	
MUSP 456	Vocal Arts Ensemble	
MUSP 458	Soprano/Alto Choir	
MUSP 459	Vocal Chords	
Total Semester Credit Hours		**55**

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours. 2 semester hours, 2 upper-division hours will be needed.

Code	Title	Semester Credit Hours
Select electives		2
Total Semester Credit Hours		**2**

Suggested Course Plan

First Year

Fall Semester		**Semester Credit Hours**
MUSA 101	Concert Attendance	0
MUSA 111	Music Technology	1
MUSA 114	Theory I-Introduction	3
MUSA 116	Ear Training and Sightsinging I	2
MUSA 129	Singer's Diction I: English and Italian	1
MUSL 1__	Music Lesson	2
MUSP 1__	Music Performance	1
ENGL 111	English Composition I-GTCO1	3
MATH 110	Mathematical Investigations-GTMA1	3
	Semester Credit Hours	**16**
Spring Semester		
MUSA 101	Concert Attendance	0
MUSA 115	Theory II-Diatonic Concepts	3
MUSA 117	Ear Training and Sightsinging II	2
MUSA 130	Class Piano I	1
MUSA 210	Vocal Function and Basics	2
MUSL 1__	Music Lesson	1
MUSP 1__	Music Performance	1
THEA 153	Acting I: Beginning Acting	3
ENGL 112	English Composition II-GTCO2	3
	Semester Credit Hours	**16**

Second Year

Fall Semester		
MUSA 101	Concert Attendance	0
MUSA 131	Class Piano II	1
MUSA 214	Theory III - Chromatic Concepts	3
MUSA 229	Singer's Diction II: German and French	1
MUSA 258	Introduction to Improvisation	1
MUSL 2__	Music Lesson	2
MUSP 2__	Music Performance	1
Essential Learning - Natural Science with a lab		4
Essential Learning - History		3
	Semester Credit Hours	**16**
Spring Semester		
MUSA 101	Concert Attendance	0
MUSA 215	Theory IV - Twentieth Century Form and Analysis	3
MUSA 230	Class Piano III	1
MUSA 250	Beginning Conducting	1
MUSL 2__	Music Lesson	2
MUSP 2__	Music Performance	1
KINE 100	Health and Wellness	1
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Essential Learning - Natural Science		3
KINA Activity		1
	Semester Credit Hours	**17**

Third Year

Fall Semester		
MUSA 101	Concert Attendance	0
MUSA 317	Applied Orchestration and Arranging	2
MUSA 326	Music History and Literature I	3
MUSL 3__	Music Lesson	2
MUSP 3__	Music Performance	1
MUSA 311	Advanced Music Technology	2
Foundation Course - Foreign Language		3
Select one of the following: [1]		2

MUSA 363	Music Industry and Marketing	
Music Business Elective		
	Semester Credit Hours	**15**
Spring Semester		
MUSA 101	Concert Attendance	0
MUSA 318	Vocal Literature	3
MUSA 327	Music History and Literature II	3
MUSP 320	Junior Recital	1
MUSP 365	Vocal Performance Workshop	1
MUSL 3__	Music Lesson	2
MUSP 3__	Music Performance	1
Essential Learning Fine Arts		3
	Semester Credit Hours	**14**
Fourth Year		
Fall Semester		
MUSA 101	Concert Attendance	0
MUSL 4__	Music Lesson	2
MUSP 4__	Music Performance	1
MUSA 410	Vocal Pedagogy	1
MUSP 465	Opera Scenes	1
Essential Learning - Social and Behavioral Sciences		3
Upper-Division General Elective		2
Restricted Elective		1
Select one of the following: [1]		2
MUSA 363	Music Industry and Marketing	
Music Business Elective		
	Semester Credit Hours	**13**
Spring Semester		
MUSA 101	Concert Attendance	0
MUSA 426	The Music of World Cultures	2
MUSL 4__	Music Lesson	2
MUSP 4__	Music Performance	1
MUSP 420	Senior Recital/Presentation	1
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - Humanities		3
Restricted Elective		1
	Semester Credit Hours	**13**
	Total Semester Credit Hours	**120**

[1] MUSA 363 is required. One other Music Business Elective should be chosen.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Music with Elective Studies in Business (BM)

Degree: Bachelor of Music
Major: Music with Elective Studies in Business
Program Code: 3281

The Bachelor of Music with Elective Studies in Business is designed for students who desire a career within the music industry. The comprehensive core curriculum in music includes courses in theory, history, literature, music technology, improvisation, and applied study on the major instrument or voice and ensemble performance. Also included are specialized courses in Music Industry and Marketing, Entrepreneurship, Arts Management, Advanced Music Technology and Electronic Music. Required business courses include the areas of Marketing, Management, Economics, and the Legal Environment of Business. Finally, an internship component provides the opportunity for students to gain real world experience in the music industry areas of their choice. Professional success in the musical arts requires a comprehensive understanding of the new business models at work in our digital world. Our program seeks to provide this up-to-date information to enhance success for the student at every level.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Analyze the business model of an entity within the music industry. (Applied Learning)
2. Develop musical interpretations using musical analysis. (Quantitative Fluency)
3. Explain knowledge of music history in presentations. (Communication Fluency)

4. Develop musical interpretations through solo performances. (Applied Learning)
5. Demonstrate musical professionalism through ethical conduct, reflection, and leadership. (Personal and Social Responsibility)
6. Find relevant sources of music information, evaluate information critically, and apply the information appropriately and effectively to specific musical purposes. (Information Literacy, Critical Thinking)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)
See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 110	Mathematical Investigations-GTMA1 (or higher)	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
ECON 201	Principles of Macroeconomics-GTSS1	3
Select one Social and Behavioral Sciences course		3
Fine Arts		
MUSA 266	History of Popular Music-GTAH1	3
Natural Sciences [2]		
Select one Natural Sciences course with a lab		4
Select one Natural Sciences course		3
Total Semester Credit Hours		**31**

[1] Must receive a grade of “C” or better and must be completed by the time the student has 60 semester hours.
[2] One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(26 semester hours, must pass all courses with a “C” or better.)

Code	Title	Semester Credit Hours
MUSA 111	Music Technology	1
MUSA 114	Theory I-Introduction	3
MUSA 115	Theory II-Diatonic Concepts	3

MUSA 116	Ear Training and Sightsinging I	2
MUSA 117	Ear Training and Sightsinging II	2
MUSA 130	Class Piano I	1
MUSA 131	Class Piano II	1
MUSA 230	Class Piano III	1
MUSA 214	Theory III - Chromatic Concepts	3
MUSA 215	Theory IV - Twentieth Century Form and Analysis	3
MUSL 1__	Music Lesson	1
MUSL 1__	Music Lesson	1
MUSL 2__	Music Lesson	1
MUSP 1__	Music Performance	1
MUSP 1__	Music Performance	1
MUSP 2__	Music Performance	1
Total Semester Credit Hours		**26**

Program Specific Degree Requirements

(55-56 semester hours, must pass all courses with a "C" or better and maintain a 2.0 cumulative GPA or higher in coursework toward the major content area.)

- Students are assessed for piano proficiency upon admission to the Department of Music. Students who need additional preparation to be successful in piano will be required to enroll in MUSA 125: Foundations of Piano (1) during their first semester.

Code	Title	Semester Credit Hours
Music Core		
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
Select one of the following:		2
MUSA 129 & MUSA 229	Singer's Diction I: English and Italian and Singer's Diction II: German and French (for vocal students)	
MUSA 368	Advanced Jazz Improvisation (for instrumental students)	
Select one of the following:		1-2
MUSA 210	Vocal Function and Basics (for vocal students)	
MUSA 268	Beginning Jazz Improvisation (for instrumental students)	
MUSA 250	Beginning Conducting	1
MUSA 311	Advanced Music Technology	2
MUSA 312	Electronic Music	2
MUSA 317	Applied Orchestration and Arranging	2
Select one of the following:		3
MUSA 326	Music History and Literature I	
MUSA 327	Music History and Literature II	
MUSA 363	Music Industry and Marketing	2
MUSA 365	Entrepreneurship for Creatives	2
MUSA 367	Arts Management	2
MUSA 426	The Music of World Cultures	2
MUSA 499	Internship	4
MUSL 2__	Music Lesson	1
MUSL 3__	Music Lesson	1
MUSL 3__	Music Lesson	1
MUSL 4__	Music Lesson	1
MUSP 2__	Music Performance	1
MUSP 3__	Music Performance	1
MUSP 3__	Music Performance	1
MUSP 4__	Music Performance	1
MUSP 420	Senior Recital/Presentation	1
Music Electives		
Select 3 Upper Division (300-400 level) semester hours from any MUSA, MUSL, or MUSP course		3
Business Core		
BUGB 231	Survey of Business Law	3
Select 15 semester hours from the following Business Restricted Electives. 7-9 Credit Hours must be Upper Division (300-400 level): [1]		15
ACCT 201	Principles of Financial Accounting	
ENTR 300	Small Business and Entrepreneurship	
ENTR 343	Exploring Entrepreneur Opportunities	
ENTR 401	Entrepreneurial Finance	
FINA 301	Managerial Finance	
MANG 201	Principles of Management	
MARK 231	Principles of Marketing	
Total Semester Credit Hours		**55-56**

[1] Instrumental students must complete 7 Upper Division and vocal students must complete 9 Upper Division.

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours. 1-2 semester hours.

Code	Title	Semester Credit Hours
Select electives		1-2
Total Semester Credit Hours		**1-2**

Suggested Course Plan

While the total semester hours below reads 117-123, students must complete 120 hours for this degree. This variation is due to different options for vocal and instrumental students, which results in varying potential credit hours by semester. Students should work with their advisor to make sure the correct number of Music Elective hours are completed depending on the course selected to complete this requirement.

First Year		
Fall Semester		**Semester Credit Hours**
MUSA 101	Concert Attendance	0
MUSA 111	Music Technology	1
MUSA 114	Theory I-Introduction	3
MUSA 116	Ear Training and Sightsinging I	2
MUSA 129	Singer's Diction I: English and Italian (for vocal students) [1]	0-1
MUSL 1__	Music Lesson	1
MUSP 1__	Music Performance	1
ENGL 111	English Composition I-GTCO1	3
KINA Activity		1
Essential Learning - Humanities		3
	Semester Credit Hours	**15-16**
Spring Semester		
MUSA 101	Concert Attendance	0
MUSA 115	Theory II-Diatonic Concepts	3
MUSA 117	Ear Training and Sightsinging II	2
MUSA 130	Class Piano I	1
MUSA 210 or MUSA 268	Vocal Function and Basics (for vocal students) or Beginning Jazz Improvisation	0-2
MUSL 1__	Music Lesson	1
MUSP 1__	Music Performance	1
ENGL 112	English Composition II-GTCO2	3
Essential Learning - Social and Behavioral Science		3
	Semester Credit Hours	**14-16**
Second Year		
Fall Semester		
MUSA 101	Concert Attendance	0
MUSA 131	Class Piano II	1
MUSA 214	Theory III - Chromatic Concepts	3
MUSA 229	Singer's Diction II: German and French [1]	0-1
MUSL 2__	Music Lesson	1
MUSP 2__	Music Performance	1
ECON 201	Principles of Macroeconomics-GTSS1	3
MATH 110	Mathematical Investigations-GTMA1	3
KINE 100	Health and Wellness	1
	Semester Credit Hours	**13-14**
Spring Semester		
MUSA 101	Concert Attendance	0
MUSA 215	Theory IV - Twentieth Century Form and Analysis	3
MUSA 230	Class Piano III	1
MUSA 250	Beginning Conducting	1
MUSL 2__	Music Lesson	1
MUSP 2__	Music Performance	1
Restricted Business Elective		3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
	Semester Credit Hours	**14**
Third Year		
Fall Semester		
MUSA 101	Concert Attendance	0
MUSA 311 or MUSA 312	Advanced Music Technology or Electronic Music	2
MUSA 317	Applied Orchestration and Arranging	2
MUSA 363	Music Industry and Marketing	2
MUSL 3__	Music Lesson	1
MUSP 3__	Music Performance	1
Complete one of the following: [2]		3
MUSA 326	Music History and Literature I	
Music Elective (upper division)		
Restricted Business Elective		3
	Semester Credit Hours	**14**
Spring Semester		
MUSA 101	Concert Attendance	0
MUSA 266	History of Popular Music-GTAH1	3
MUSA 365	Entrepreneurship for Creatives	2
MUSA 368	Advanced Jazz Improvisation (for instrumental students only) [1]	0-2
Complete one of the following: [2]		3
MUSA 327	Music History and Literature II	
Music Elective (upper division)		
MUSL 3__	Music Lesson	1
MUSP 3__	Music Performance	1
Restricted Business Elective		3
BUGB 231	Survey of Business Law	3
	Semester Credit Hours	**16-18**
Fourth Year		
Fall Semester		
MUSA 101	Concert Attendance	0
MUSA 312 or MUSA 311	Electronic Music or Advanced Music Technology	2
MUSA 367	Arts Management	2
MUSL 4__	Music Lesson	1
MUSP 4__	Music Performance	1
MUSP 420	Senior Recital/Presentation	1
Restricted Business Elective		3
Essential Learning - Natural Science with Lab		4
Essential Learning - History		3
	Semester Credit Hours	**17**
Spring Semester		
MUSA 101	Concert Attendance	0
MUSA 426	The Music of World Cultures	2
MUSA 499	Internship	4
Restricted Business Elective		3
General Electives		1-2
Essential Learning: Natural Science		3
	Semester Credit Hours	**13-14**
	Total Semester Credit Hours	**116-123**

1 Students only need to complete MUSA 129 and MUSA 229, or MUSA 368. MUSA 129 and MUSA 229 are for vocal students, and MUSA 368 is for instrumental students.

2 Student must complete either MUSA 326 (offered in Fall only) or MUSA 327 (offered in Spring only), as well three credits of Music Electives. If a student opts to take MUSA 326 their Third Year/Fall Semester, then they should complete their Music Elective in Third Year/Spring Semester. Alternatively, if a student opts to take MUSA 327 in Third Year/Spring Semester, then they should complete their Music Elective in Third Year/Fall Semester.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It

is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Education: Music Education K-12 (BME)

Degree: Bachelor of Music Education
Major: Music Education K-12
Program Code: 3282

The Music Education K-12 degree provides students with the knowledge, skills, and musicianship needed to become successful music educators. After completion of core coursework, students will specialize in either an instrumental and vocal/choral track.

Core Coursework for Music Education Majors

Music education majors complete a core coursework designed to provide comprehensive and well-rounded skills for teaching music for grades K-12. This foundational coursework includes applied lessons, class piano, ear training and sightsinging, performance ensembles, music history, music literature, music theory, music technology, vocal techniques, and world music.

Building on this foundation, students take courses aimed at preparing them to lead ensembles and create effective learning environments for diverse music classrooms. These courses include beginning and advanced conducting, instrumental techniques, and elementary and secondary music methodologies.

Specialized Coursework for Music Education Majors

Students choose one of the following options based on their area of music specialization:

1. **Instrumental and Keyboard Focus**:
   Students with an instrumental or keyboard specialization take technique courses for woodwinds, brass, percussion, and strings, as well as symphonic literature, advanced conducting for instrumentalists, and a course for special instrumental ensembles.
2. **Vocal Focus**:
   Students with a vocal specialization take two courses in diction, a course in vocal pedagogy, advanced conducting for choral ensembles, and a course for special vocal ensembles.

Professional Education

- **Professional Education Coursework:** Along with demonstrating a strong musical foundation, students progress to the Center for Teacher Education, where they delve into the fundamentals of the teaching profession. This phase covers educational theories, as well as the social, historical, and legal contexts of education, with a focus on diversity in student development. Through school visits and fieldwork, students gain hands-on experience, exploring essential topics such as curriculum design, accountability, learning environments, and professionalism in education.
- **Field Experience**: As a recognition of the importance of observation and modeling, two hundred hours of classroom experience are spiraled in the music education curriculum *before* pre-service teachers begin student teaching. This practical experience, gained through partnerships with school districts across western Colorado, affords CMU pre-service teachers ample opportunity to work with children of all ages and diverse backgrounds in various educational settings.
- **Student Teaching Internship**: As a culmination of their preparation, pre-service teachers apply the skills gained during their coursework through the student teaching internship. During this semester, students immerse themselves in both elementary and secondary classrooms, gaining hands-on experience as they transition into their roles to in-service music educators.

Admission Requirements for the Center for Teacher Education:

To apply for admission to the Center for Teacher Education licensure program:

- Complete **a minimum of 75 credit hours** of Essential Learning and content area coursework.
- Maintain **a minimum GPA of 2.80**.
- For more information, refer to the **Teacher Education Admission Packet** for specific admissions criteria.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Demonstrate pedagogical techniques associated with teaching music curricula (specialized knowledge/applied learning)
2. Develop musical interpretations using musical analysis (quantitative fluency)
3. Explain knowledge of music history in presentations (communication fluency)

4. Develop musical interpretations through solo performances (critical thinking)
5. Demonstrate musical professionalism through ethical conduct, reflection, and leadership (personal and social responsibility)
6. Find relevant sources of information, evaluate information critically, and apply the information appropriately and effectively to musical purposes (information literacy)
7. Teacher Education Outcome 1: Demonstrate mastery of major area's content knowledge and pedagogical strategies through fieldwork with learners in professional settings.(Specialized Knowledge/Applied Learning)
8. Teacher Education Outcome 2: Design and establish a safe, inclusive, and respectful learning environment for a diverse population of students.(Specialized Knowledge/Applied Learning)
9. Teacher Education Outcome 3: Plan and deliver effective instruction to students, based on research-based pedagogical practices. (Communication Literacy/Information Literacy)
10. Teacher Education Outcome 4: Collect and analyze student assessment data and use results to inform planning and instruction. (Quantitative Fluency)
11. Teacher Education Outcome 5: Demonstrate professionalism through ethical conduct, reflection, and leadership.(Personal and Social Responsibility)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this program:

- 126 semester hours required for the BME in Music Education K-12.
- 2.80 cumulative GPA or higher in all CMU coursework.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

For this program, some Essential Learning credits will have to be completed in the junior year. See suggested course sequencing for more details.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [2]		
MATH 110	Mathematical Investigations-GTMA1	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
PSYC 233	Human Growth and Development-GTSS3 [3]	3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [4]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

1. Must receive a grade of "B" or better and must be completed by the time the student has 60 semester hours.
2. Must receive a grade of "C" or better, must be completed by the time the student has 60 semester hours.
3. Must receive a grade of "B" or better.
4. One course must include a lab.

Other Lower Division Requirements

(6 semester hours)

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity Course [1]		1
Essential Learning Capstone [2]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] MUSP 147 satisfies this requirement.

[2] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(26 semester hours, must pass all courses with a "C" or better)

Code	Title	Semester Credit Hours
MUSA 111	Music Technology	1
MUSA 114	Theory I-Introduction	3
MUSA 115	Theory II-Diatonic Concepts	3
MUSA 116	Ear Training and Sightsinging I	2
MUSA 117	Ear Training and Sightsinging II	2
MUSA 130	Class Piano I	1
MUSA 131	Class Piano II	1
MUSA 214	Theory III - Chromatic Concepts	3
MUSA 215	Theory IV - Twentieth Century Form and Analysis	3
MUSA 230	Class Piano III	1
MUSL 1__	Music Lesson	1
MUSL 1__	Music Lesson	1
MUSL 2__	Music Lesson	1
MUSP 1__	Music Performance	1
MUSP 1__	Music Performance	1
MUSP 2__	Music Performance	1
Total Semester Credit Hours		**26**

Program Specific Degree Requirements

(63 semester hours, must pass all courses with a "C" or better and maintain a 2.80 cumulative GPA or higher in coursework in this area.)

- Students are assessed for piano proficiency upon admission to the Department of Music. Students who need additional preparation to be successful in piano will be required to enroll in MUSA 125: Foundations of Piano (1) during their first semester.

Code	Title	Semester Credit Hours
Music Core [1]		
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 101	Concert Attendance	0
MUSA 240	Introduction to Music Education	2
MUSA 250	Beginning Conducting	1
Select one of the following:		3
MUSA 303	Symphonic Literature	
MUSA 305	Keyboard Literature	
MUSA 319	Choral Literature	
MUSA 317	Applied Orchestration and Arranging	2
MUSA 326	Music History and Literature I	3
MUSA 327	Music History and Literature II	3
MUSA 340	Teaching Elementary and General Music: Methods, Principles, and Materials (30 field experience hours)	3
MUSA 426	The Music of World Cultures	2
MUSA 440	Teaching Vocal Music K-12: Methods, Principles, and Materials (35 field experience hours)	2
MUSA 441	Teaching Instrumental Music K-12: Methods, Principles and Materials (35 field experience hours)	2
MUSL 2__	Music Lesson	1
MUSL 3__	Music Lesson	1
MUSL 3__	Music Lesson	1
MUSL 4__	Music Lesson	1
MUSP 2__	Music Performance	1
MUSP 3__	Music Performance	1
MUSP 3__	Music Performance	1
MUSP 4__	Music Performance	1
MUSP 420	Senior Recital/Presentation	1
Total Semester Credit Hours		**32**

Code	Title	Semester Credit Hours
Music Education K-12 Requirements [1]		
Option 1: Instrumental and Keyboard Focus		
MUSA 137	Class Voice	1
MUSA 232	String Techniques and Materials	2
MUSA 233	Woodwind Techniques and Materials	2
MUSA 234	Brass Techniques and Materials	2
MUSA 235	Percussion Techniques and Materials	2
MUSA 268	Beginning Jazz Improvisation	1
MUSA 350B	Advanced Conducting: Instrumental	2

MUSA 442B	Teaching Special Ensembles: Instrumental (30 field experience hours)	2
Total Semester Credit Hours		**14**

Code	Title	Semester Credit Hours
Option 2: Vocal Focus		
MUSA 129	Singer's Diction I: English and Italian	1
MUSA 210	Vocal Function and Basics	2
MUSA 229	Singer's Diction II: German and French	1
Select two of the following:		4
MUSA 232	String Techniques and Materials	
MUSA 233	Woodwind Techniques and Materials	
MUSA 234	Brass Techniques and Materials	
MUSA 235	Percussion Techniques and Materials	
MUSA 350A	Advanced Conducting: Choral	2
MUSA 410	Vocal Pedagogy	1
MUSA 442A	Teaching Special Ensembles: Choral (30 field experience hours)	2
MUSP 365	Vocal Performance Workshop	1
Total Semester Credit Hours		**14**

Professional Education Coursework

The Department of Music faculty are committed to developing independent, well-prepared educators ready to succeed on day one. To this end, students must demonstrate competency in their content area by successfully completing the PRAXIS II exam and all degree coursework prior to beginning their student teaching internship. Each student teaching placement includes both elementary (K-5) and secondary (6-8 or 9-12) experiences, equipping future music teachers with the skills and adaptability needed for success in diverse educational settings.

All EDUC prefix courses listed below must be completed with a grade of "B" or better to progress through the program sequence.

Code	Title	Semester Credit Hours
K-12 Licensure Requirements [2,3]		
EDUC 115	What It Means To Be An Educator (8 field experience hours)	1
EDUC 215	Teaching as a Profession (12 field experience hours)	1
EDUC 343	Teaching to Diversity (20 field experience hours)	3
EDUC 499D	Teaching Internship and Colloquia: Elementary for K-12 (300 field experience hours)	6
EDUC 499H	Teaching Internship and Colloquia: Secondary for K-12 (300 field experience hours)	6
Praxis II Exam Passed		
Total Semester Credit Hours		**17**

[1] Students must select the option that aligns with their area of focus.

[2] Must be completed with a grade of "B" or better.

[3] Program Requirements: ENGL 111, ENGL 112, PSYC 233, EDUC 115 and EDUC 215 (all with a grade of "B" or better) and formal acceptance to the Teacher Education Program

Suggested Course Plan
Suggested 8-semester Course Sequencing

Students are strongly encouraged to use the 9-semester sequence unless they have incoming credits or plan to take some Essential Learning courses during the summer or J-term.

While the total semester hours below reads 125-127, students in this program (both vocal and keyboard/instrumental) actually complete 126 hours for degree requirements. This variation in the total hours is due to differences in rotation courses that appear multiple times.

Bachelor of Music Education: Instrumental and Keyboard Focus

First Year		
Fall Semester		**Semester Credit Hours**
MUSA 101	Concert Attendance	0
MUSL 1__	Music Lesson	1
MUSP 1__	Music Performance	1
MUSA 111	Music Technology	1
MUSA 114	Theory I-Introduction	3
MUSA 116	Ear Training and Sightsinging I	2
ENGL 111	English Composition I-GTCO1	3
KINA Activity (Marching Band required for wind and percussion majors)		1
Essential Learning - Fine Arts		3
KINE 100	Health and Wellness	1
	Semester Credit Hours	**16**
Spring Semester		
MUSA 101	Concert Attendance	0
MUSL 1__	Music Lesson	1
MUSP 1__	Music Performance	1
MUSA 115	Theory II-Diatonic Concepts	3
MUSA 117	Ear Training and Sightsinging II	2
MUSA 130	Class Piano I	1
MATH 110	Mathematical Investigations-GTMA1	3
ENGL 112	English Composition II-GTCO2	3
Essential Learning - Social and Behavioral Sciences		3
	Semester Credit Hours	**17**
Second Year		
Fall Semester		
MUSA 101	Concert Attendance	0
MUSL 2__	Music Lesson	1
MUSP 2__	Music Performance	1
MUSA 131	Class Piano II	1
MUSA 137	Class Voice	1
MUSA 214	Theory III - Chromatic Concepts	3
MUSA 240	Introduction to Music Education	2
MUSA 232 or MUSA 233	String Techniques and Materials or Woodwind Techniques and Materials	2
MUSA 268	Beginning Jazz Improvisation	1
PSYC 233	Human Growth and Development-GTSS3	3
	Semester Credit Hours	**15**
Spring Semester		
MUSA 101	Concert Attendance	0

MUSL 2__	Music Lesson	1
MUSP 2__	Music Performance	1
MUSA 215	Theory IV - Twentieth Century Form and Analysis	3
MUSA 230	Class Piano III	1
MUSA 234 or MUSA 235	Brass Techniques and Materials or Percussion Techniques and Materials	2
MUSA 250	Beginning Conducting	1
MUSA 441 or MUSA 440	Teaching Instrumental Music K-12: Methods, Principles and Materials or Teaching Vocal Music K-12: Methods, Principles, and Materials	2
Essential Learning - Humanities		3
Essential Learning - Natural Science		3
	Semester Credit Hours	**17**

Third Year

Fall Semester

MUSA 101	Concert Attendance	0
MUSL 3__	Music Lesson	1
MUSP 3__	Music Performance	1
MUSA 233 or MUSA 232	Woodwind Techniques and Materials or String Techniques and Materials	2
MUSA 317	Applied Orchestration and Arranging	2
MUSA 326	Music History and Literature I	3
MUSA 340 or MUSA 442B	Teaching Elementary and General Music: Methods, Principles, and Materials or Teaching Special Ensembles: Instrumental	2-3
MUSA 350B	Advanced Conducting: Instrumental	2
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
	Semester Credit Hours	**17-18**

Spring Semester

MUSA 101	Concert Attendance	0
MUSL 3__	Music Lesson	1
MUSP 3__	Music Performance	1
MUSA 235 or MUSA 234	Percussion Techniques and Materials or Brass Techniques and Materials	2
MUSA 303 or MUSA 305	Symphonic Literature or Keyboard Literature	3
MUSA 327	Music History and Literature II	3
MUSA 426	The Music of World Cultures	2
MUSA 440 or MUSA 441	Teaching Vocal Music K-12: Methods, Principles, and Materials or Teaching Instrumental Music K-12: Methods, Principles and Materials	2
EDUC 115	What It Means To Be An Educator	1
EDUC 215	Teaching as a Profession	1
	Semester Credit Hours	**16**

Fourth Year

Fall Semester

MUSA 101	Concert Attendance	0
MUSL 4__	Music Lesson	1
MUSP 4__	Music Performance	1
MUSA 340 or MUSA 442B	Teaching Elementary and General Music: Methods, Principles, and Materials or Teaching Special Ensembles: Instrumental	2-3
MUSP 420	Senior Recital/Presentation	1
Essential Learning - History		3
Essential Learning - Natural Science with Lab		4
EDUC 343	Teaching to Diversity	3
	Semester Credit Hours	**15-16**

Spring Semester

EDUC 499D	Teaching Internship and Colloquia: Elementary for K-12	6
EDUC 499H	Teaching Internship and Colloquia: Secondary for K-12	6
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**125-127**

Bachelor of Music Education: Vocal Focus

First Year

Fall Semester

		Semester Credit Hours
MUSA 101	Concert Attendance	0
MUSL 1__	Music Lesson	1
MUSP 1__	Music Performance	1
MUSA 111	Music Technology	1
MUSA 114	Theory I-Introduction	3
MUSA 116	Ear Training and Sightsinging I	2
MUSA 129	Singer's Diction I: English and Italian	1
ENGL 111	English Composition I-GTCO1	3
KINA Activity		1
Essential Learning - Fine Arts		3
	Semester Credit Hours	**16**

Spring Semester

MUSA 101	Concert Attendance	0
MUSL 1__	Music Lesson	1
MUSP 1__	Music Performance	1
MUSA 115	Theory II-Diatonic Concepts	3
MUSA 117	Ear Training and Sightsinging II	2
MUSA 130	Class Piano I	1
MUSA 210	Vocal Function and Basics	2
ENGL 112	English Composition II-GTCO2	3
Essential Learning - Social and Behavioral Sciences		3
KINE 100	Health and Wellness	1
	Semester Credit Hours	**17**

Second Year

Fall Semester

MUSA 101	Concert Attendance	0
MUSL 2__	Music Lesson	1
MUSP 2__	Music Performance	1
MUSA 131	Class Piano II	1
MUSA 214	Theory III - Chromatic Concepts	3
MUSA 229	Singer's Diction II: German and French	1
MUSA 240	Introduction to Music Education	2
MATH 110	Mathematical Investigations-GTMA1	3
PSYC 233	Human Growth and Development-GTSS3	3
Essential Learning - Natural Science		3
	Semester Credit Hours	**18**

Spring Semester

MUSA 101	Concert Attendance	0
MUSL 2__	Music Lesson	1
MUSP 2__	Music Performance	1
MUSA 215	Theory IV - Twentieth Century Form and Analysis	3
MUSA 230	Class Piano III	1
MUSA 2__	Instrumental Techniques and Materials Course	2
MUSA 250	Beginning Conducting	1
MUSA 441 or MUSA 440	Teaching Instrumental Music K-12: Methods, Principles and Materials or Teaching Vocal Music K-12: Methods, Principles, and Materials	2
Essential Learning - Humanities		3
Essential Learning - History		3
	Semester Credit Hours	**17**

Third Year		
Fall Semester		
MUSA 101	Concert Attendance	0
MUSL 3__	Music Lesson	1
MUSP 3__	Music Performance	1
MUSA 326	Music History and Literature I	3
MUSA 2__	Instrumental Techniques and Materials Course	2
MUSA 340 or MUSA 442A	Teaching Elementary and General Music: Methods, Principles, and Materials or Teaching Special Ensembles: Choral	2-3
MUSA 350A	Advanced Conducting: Choral	2
MUSP 365	Vocal Performance Workshop	1
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
	Semester Credit Hours	**16-17**
Spring Semester		
MUSA 101	Concert Attendance	0
MUSL 3__	Music Lesson	1
MUSP 3__	Music Performance	1
MUSA 327	Music History and Literature II	3
MUSA 319	Choral Literature	3
MUSA 426	The Music of World Cultures	2
MUSA 440 or MUSA 441	Teaching Vocal Music K-12: Methods, Principles, and Materials or Teaching Instrumental Music K-12: Methods, Principles and Materials	2
EDUC 115	What It Means To Be An Educator	1
EDUC 215	Teaching as a Profession	1
	Semester Credit Hours	**14**
Fourth Year		
Fall Semester		
MUSA 101	Concert Attendance	0
MUSL 4__	Music Lesson	1
MUSP 4__	Music Performance	1
MUSA 340 or MUSA 442A	Teaching Elementary and General Music: Methods, Principles, and Materials or Teaching Special Ensembles: Choral	2-3
MUSA 317	Applied Orchestration and Arranging	2
MUSA 410	Vocal Pedagogy	1
MUSP 420	Senior Recital/Presentation	1
Essential Learning - Natural Science with Lab		4
EDUC 343	Teaching to Diversity	3
	Semester Credit Hours	**15-16**
Spring Semester		
EDUC 499D	Teaching Internship and Colloquia: Elementary for K-12	6
EDUC 499H	Teaching Internship and Colloquia: Secondary for K-12	6
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**125-127**

Suggested 9-semester Course Sequencing

A 9-semester course sequence is a standard option for most music education students, as it allows students the necessary time to achieve the competencies required for certification and career readiness while maintaining a manageable course load.

While the total semester hours below reads 125-127, students in this program (both vocal and keyboard/instrumental) actually complete 126 hours for degree requirements. This variation in the total hours is due to differences in rotation courses that appear multiple times.

Bachelor of Music Education: Instrumental or Keyboard Focus

First Year		
Fall Semester		**Semester Credit Hours**
MUSA 101	Concert Attendance	0
MUSL 1__	Music Lesson	1
MUSP 1__	Music Performance	1
MUSA 111	Music Technology	1
MUSA 114	Theory I-Introduction	3
MUSA 116	Ear Training and Sightsinging I	2
ENGL 111	English Composition I-GTCO1	3
PSYC 233	Human Growth and Development-GTSS3	3
KINA Activity (Marching Band required for winds and percussion majors)		1
	Semester Credit Hours	**15**
Spring Semester		
MUSA 101	Concert Attendance	0
MUSL 1__	Music Lesson	1
MUSP 1__	Music Performance	1
MUSA 115	Theory II-Diatonic Concepts	3
MUSA 117	Ear Training and Sightsinging II	2
MUSA 130	Class Piano I	1
ENGL 112	English Composition II-GTCO2	3
Essential Learning: Fine Arts		3
KINE 100	Health and Wellness	1
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
MUSA 101	Concert Attendance	0
MUSL 2__	Music Lesson	1
MUSP 2__	Music Performance	1
MUSA 131	Class Piano II	1
MUSA 137	Class Voice	1
MUSA 214	Theory III - Chromatic Concepts	3
MUSA 232 or MUSA 233	String Techniques and Materials or Woodwind Techniques and Materials	2
MUSA 240	Introduction to Music Education	2
MUSA 268	Beginning Jazz Improvisation	1
MATH 110	Mathematical Investigations-GTMA1	3
	Semester Credit Hours	**15**
Spring Semester		
MUSA 101	Concert Attendance	0
MUSL 2__	Music Lesson	1
MUSP 2__	Music Performance	1
MUSA 215	Theory IV - Twentieth Century Form and Analysis	3
MUSA 230	Class Piano III	1
MUSA 234 or MUSA 235	Brass Techniques and Materials or Percussion Techniques and Materials	2
MUSA 250	Beginning Conducting	1
Essential Learning: Natural Science with lab		4
	Semester Credit Hours	**13**
Third Year		
Fall Semester		
MUSA 101	Concert Attendance	0
MUSL 3__	Music Lesson	1
MUSP 3__	Music Performance	1
MUSA 233 or MUSA 232	Woodwind Techniques and Materials or String Techniques and Materials	2

MUSA 340 or MUSA 442B	Teaching Elementary and General Music: Methods, Principles, and Materials or Teaching Special Ensembles: Instrumental	2-3
MUSA 350B	Advanced Conducting: Instrumental	2
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Essential Learning: Natural Science		3
	Semester Credit Hours	**15-16**
Spring Semester		
MUSA 101	Concert Attendance	0
MUSL 3__	Music Lesson	1
MUSP 3__	Music Performance	1
MUSA 235 or MUSA 234	Percussion Techniques and Materials or Brass Techniques and Materials	2
MUSA 303 or MUSA 305	Symphonic Literature or Keyboard Literature	3
MUSA 441 or MUSA 440	Teaching Instrumental Music K-12: Methods, Principles and Materials or Teaching Vocal Music K-12: Methods, Principles, and Materials	2
EDUC 115	What It Means To Be An Educator	1
EDUC 215	Teaching as a Profession	1
Essential Learning: Humanities		3
	Semester Credit Hours	**14**
Fourth Year		
Fall Semester		
MUSA 101	Concert Attendance	0
MUSL 4__	Music Lesson	1
MUSP 4__	Music Performance	1
MUSA 317	Applied Orchestration and Arranging	2
MUSA 326	Music History and Literature I	3
MUSA 340 or MUSA 442B	Teaching Elementary and General Music: Methods, Principles, and Materials or Teaching Special Ensembles: Instrumental	2-3
Essential Learning: History		3
Essential Learning: Social and Behavioral Sciences		3
	Semester Credit Hours	**15-16**
Spring Semester		
MUSA 101	Concert Attendance	0
MUSA 327	Music History and Literature II	3
MUSA 441 or MUSA 440	Teaching Instrumental Music K-12: Methods, Principles and Materials or Teaching Vocal Music K-12: Methods, Principles, and Materials	2
MUSA 426	The Music of World Cultures	2
MUSP 420	Senior Recital/Presentation	1
EDUC 343	Teaching to Diversity	3
	Semester Credit Hours	**11**
Fifth Year		
Fall Semester		
EDUC 499D	Teaching Internship and Colloquia: Elementary for K-12	6
EDUC 499H	Teaching Internship and Colloquia: Secondary for K-12	6
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**125-127**

Bachelor of Music Education: Vocal Focus

First Year		
Fall Semester		**Semester Credit Hours**
MUSA 101	Concert Attendance	0
MUSL 1__	Music Lesson	1
MUSP 1__	Music Performance	1
MUSA 111	Music Technology	1
MUSA 114	Theory I-Introduction	3
MUSA 116	Ear Training and Sightsinging I	2
MUSA 129	Singer's Diction I: English and Italian	1
ENGL 111	English Composition I-GTCO1	3
KINE 100	Health and Wellness	1
KINA Activity		1
	Semester Credit Hours	**14**
Spring Semester		
MUSA 101	Concert Attendance	0
MUSL 1__	Music Lesson	1
MUSP 1__	Music Performance	1
MUSA 115	Theory II-Diatonic Concepts	3
MUSA 117	Ear Training and Sightsinging II	2
MUSA 130	Class Piano I	1
MUSA 210	Vocal Function and Basics	2
ENGL 112	English Composition II-GTCO2	3
	Semester Credit Hours	**13**
Second Year		
Fall Semester		
MUSA 101	Concert Attendance	0
MUSL 2__	Music Lesson	1
MUSP 2__	Music Performance	1
MUSA 131	Class Piano II	1
MUSA 214	Theory III - Chromatic Concepts	3
MUSA 229	Singer's Diction II: German and French	1
MUSA 240	Introduction to Music Education	2
MATH 110	Mathematical Investigations-GTMA1	3
PSYC 233	Human Growth and Development-GTSS3	3
	Semester Credit Hours	**15**
Spring Semester		
MUSA 101	Concert Attendance	0
MUSL 2__	Music Lesson	1
MUSP 2__	Music Performance	1
MUSA 215	Theory IV - Twentieth Century Form and Analysis	3
MUSA 230	Class Piano III	1
MUSA 2__	Instrumental Techniques and Materials Course	2
MUSA 250	Beginning Conducting	1
Essential Learning: Natural Science with lab		4
	Semester Credit Hours	**13**
Third Year		
Fall Semester		
MUSA 101	Concert Attendance	0
MUSL 3__	Music Lesson	1
MUSP 3__	Music Performance	1
MUSA 340 or MUSA 442A	Teaching Elementary and General Music: Methods, Principles, and Materials or Teaching Special Ensembles: Choral	2-3
MUSA 350A	Advanced Conducting: Choral	2
MUSP 365	Vocal Performance Workshop	1
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Essential Learning: Natural Science		3
	Semester Credit Hours	**14-15**
Spring Semester		
MUSA 101	Concert Attendance	0
MUSL 3__	Music Lesson	1
MUSP 3__	Music Performance	1
MUSA 319	Choral Literature	3

MUSA 441 or MUSA 440	Teaching Instrumental Music K-12: Methods, Principles and Materials or Teaching Vocal Music K-12: Methods, Principles, and Materials	2
EDUC 115	What It Means To Be An Educator	1
EDUC 215	Teaching as a Profession	1
Essential Learning: Humanities		3
Essential Learning: Fine Arts		3
	Semester Credit Hours	**15**
Fourth Year		
Fall Semester		
MUSA 101	Concert Attendance	0
MUSL 4__	Music Lesson	1
MUSP 4__	Music Performance	1
MUSA 317	Applied Orchestration and Arranging	2
MUSA 2__	Instrumental Techniques and Materials Course	2
MUSA 326	Music History and Literature I	3
MUSA 340 or MUSA 442A	Teaching Elementary and General Music: Methods, Principles, and Materials or Teaching Special Ensembles: Choral	2-3
MUSA 410	Vocal Pedagogy	1
Essential Learning: History		3
	Semester Credit Hours	**15-16**
Spring Semester		
MUSA 101	Concert Attendance	0
MUSA 327	Music History and Literature II	3
MUSA 441 or MUSA 440	Teaching Instrumental Music K-12: Methods, Principles and Materials or Teaching Vocal Music K-12: Methods, Principles, and Materials	2
MUSA 426	The Music of World Cultures	2
MUSP 420	Senior Recital/Presentation	1
EDUC 343	Teaching to Diversity	3
Essential Learning: Social and Behavioral Sciences		3
	Semester Credit Hours	**14**
Fifth Year		
Fall Semester		
EDUC 499D	Teaching Internship and Colloquia: Elementary for K-12	6
EDUC 499H	Teaching Internship and Colloquia: Secondary for K-12	6
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**125-127**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Music: Jazz Studies (Minor)

Minor: Jazz Studies
Program Code: M213

The Jazz Studies Music Minor provides the opportunity for students to obtain a comprehensive set of fundamental skills in the jazz area, including large-ensemble performance, small-group performance, improvisation, composition and arranging, history and literature, and private instruction. Music majors who add this minor will broaden their skill set and marketability beyond the classical music area, and non-music majors may add this minor as a secondary area of study. Entrance to the Jazz Studies Music Minor requires an audition and prior jazz experience.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.

- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(18 semester hours)

Code	Title	Semester Credit Hours
MUSA 267	Jazz History and Literature-GTAH1	3
or MUSA 266	History of Popular Music-GTAH1	
MUSA 268	Beginning Jazz Improvisation	1
Select 2 semester hours of any Music Elective (MUSA, MUSL or MUSP)		2
Six semester hours selected from Applied Jazz Lessons: [1]		
MUSL 139	Jazz/Commercial	1
MUSL 139	Jazz/Commercial	1
MUSL 239	Jazz/Commercial	1
MUSL 239	Jazz/Commercial	1
MUSL 339	Jazz/Commercial	1
MUSL 339	Jazz/Commercial	1
Six semester hours of Commercial Ensemble or Jazz Ensemble; 4 semester hours of which must be Upper Division (300-400 level):		6
MUSP 144	Jazz Ensemble	
MUSP 162	Commercial Ensemble	
MUSP 244	Jazz Ensemble	
MUSP 262	Commercial Ensemble	
MUSP 344	Jazz Ensemble	
MUSP 362	Commercial Ensemble	
MUSP 444	Jazz Ensemble	
MUSP 462	Commercial Ensemble	
Total Semester Credit Hours		**18**

[1] One semester of jazz lessons must be taken on jazz piano, and a second semester must be taken on jazz composition/arranging or jazz piano. All other semesters are taken on the student's primary jazz instrument or voice.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the "Intent to Graduate" form.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Music: Instrumental (Minor)

Minor: Music - Instrumental
Program Code: M210

The Minor in Instrumental Music offers students in other majors the opportunity to stay involved with music in college, gaining experience and skills in music lessons, ensembles, and academics. The minor includes three years of ensembles and lessons on an applied instrument; academic courses in music theory, appreciation, and literature; as well as an upper division elective.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.

- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(23 semester hours)

Code	Title	Semester Credit Hours
MUSA 113	Fundamentals of Theory	3
or MUSA 114	Theory I-Introduction	
MUSA 220	Music Appreciation-GTAH1	3
Select one of the following:		3
MUSA 302	Keyboard Literature I	
MUSA 303	Symphonic Literature	
MUSA 304	Keyboard Literature II	
Select 2 semester hours from Upper Division MUSA, MUSL, or MUSP courses		
MUSx [1]		1
MUSx [1]		1
Six semester hours of Applied Instrumental Music Lessons; at least two semester hours must be at the 300 level		
MUSL		1
MUSL		1
MUSL		1
MUSL		1
MUSL 3__ [1]		1
MUSL 3__ [1]		1
Six semester hours of Instrumental Performance Ensembles; at least two semester hours must be at the 300 level.		
MUSP		1
MUSP		1
MUSP		1
MUSP		1
MUSP 3__ [1]		1
MUSP 3__ [1]		1
Total Semester Credit Hours		**23**

[1] Must be upper division.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the "Intent to Graduate" form.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Music: Vocal (Minor)

Minor: Music - Vocal
Program Code: M211

The Vocal Music Minor provides training and performance opportunities for students seeking music development in voice as their secondary area of study. Fundamental studies in piano, music reading and theory, two years of voice lessons, three years of performing in choral ensembles, studies in diction and conducting, and performance training in opera scenes comprise this minor. Audition for acceptance into the Vocal Minor is required.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total

number of credit hours for a student who has not already taken those prerequisites.

- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(23 semester hours)

Code	Title	Semester Credit Hours
MUSA 113	Fundamentals of Theory	3
or MUSA 114	Theory I-Introduction	
MUSA 116	Ear Training and Sightsinging I	2
MUSA 129	Singer's Diction I: English and Italian	1
MUSA 130	Class Piano I	1
MUSA 210	Vocal Function and Basics	2
MUSL 137	Voice	1
MUSL 237	Voice	1
MUSL 337	Voice	1
MUSL 437	Voice	1
MUSA 410	Vocal Pedagogy	1
MUSA 318	Vocal Literature	3
or MUSA 319	Choral Literature	
Complete 6 semester hours of MUSP Vocal Ensemble, 2 hours each at 100, 200, and 300 levels:		
MUSP 1__		1
MUSP 1__		1
MUSP 2__		1
MUSP 2__		1
MUSP 3__		1
MUSP 3__		1
Total Semester Credit Hours		**23**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the "Intent to Graduate" form.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Nurse Aide

Program Description

The Nurse Aide certificate program provides the student with entry-level skills required for employment as a nurse aide in a long-term care facility, an acute care facility, or a home health care agency. The special needs of the geriatric population are emphasized. Students who successfully complete this certificate qualify to take the National Nurse Aide Assessment Program Examination (NNAAP) in order to become certified and placed on the Colorado Nurse Aide Registry.

Instruction includes basic nursing skills, personal care skills, care of cognitively impaired clients, skills that meet the psycho-social and mental health needs of clients, and basic restorative services. Students gain an understanding of professional communication and interpersonal skills in healthcare, infection control, safety, and emergency procedures, promoting clients' independence, and respecting clients' rights. A minimum of 92 hours of training is required.

Students admitted to the Nurse Aide program must undergo a background check, submit proof of immunizations, and obtain professional liability insurance.

Contact Information

CMU Tech
Office of Student Services, Kayenta Hall B102
2508 Blichmann Avenue
970.255.2670

Programs of Study Certificates

- Nurse Aide (Technical Certificate) (p. 658)

Nurse Aide (Technical Certificate)

Award: Technical Certificate
Program of Study: Nurse Aide
Program Code: 1602

This certificate is designed to provide the student with entry-level skills required for employment as a nurse's aide in a long-term care facility, an acute care facility or a home health care agency. Special needs of the geriatric population are emphasized. Students who successfully complete this certificate qualify to take the State Certification Examination. Instruction includes basic nursing assistant procedures, skills, restorative services, general household activities, patient care, safety, and emergency care. Students gain an understanding of the responsibilities involved in working with patients of all ages, in both wellness and illness, issues of mental health, patient rights, and patient/family interactions. A minimum of 92 contact hours hours of training is required.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Examine the professional certified nursing assistant's potential strength in various roles within the health care delivery system (Specialized Knowledge)
2. Demonstrate skills outlined by the State board of Nursing for nursing assistants in regards to the five terminal competencies (Applied Learning)
3. Discuss the characteristics that health care workers demonstrate that promote professionalism and explain the importance of each characteristic (Specialized Knowledge)
4. Describe the ethical standards that govern the nursing profession in particular and the health care profession in general. (Specialized Knowledge)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(5 semester hours, must maintain a 2.00 cumulative GPA or higher in coursework.)

Code	Title	Semester Credit Hours
NURA 101	Nurse Aide Healthcare Skills	4
NURA 170	Nurse Aide Clinical Experience	1
Total Semester Credit Hours		**5**

Suggested Course Plan

May be taken in Fall or Spring or Summer

First Year		
Fall Semester		**Semester Credit Hours**
NURA 101	Nurse Aide Healthcare Skills	4
NURA 170	Nurse Aide Clinical Experience	1
	Semester Credit Hours	**5**
	Total Semester Credit Hours	**5**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Nursing

Program Description

The practical nurse (PN) program is designed for students interested in entry-level positions in nursing. The PN program is accredited by the Accreditation Commission for Education in Nursing (ACEN) and has full approval by the Colorado State Board of Nursing. Completion of the PN program allows students to progress for advanced placement in the Bachelor of Science in Nursing (BSN) program. The PN program prepares the student to be a direct caregiver in hospitals, and in long-term care and ambulatory care settings. This program has selective admission requirements. Admission to the University does not guarantee admission to the program. A separate admission application to the program is required.

The LPN–BSN program is for licensed practical nurses (LPNs) seeking to become a baccalaureate-prepared registered nurse (RN). Graduates of the LPN-BSN program generally have more employment opportunities, compensation, and job security compared with graduates of the PN program. The LPN–BSN program is accredited by the Commission on Collegiate Nursing Education (CCNE) and has full approval by the Colorado State Board of Nursing. The LPN–BSN program prepares students to work as RNs in a variety of health care settings. This program has selective admission requirements. Admission to the University does not guarantee admission to the program. A separate admission application to the program is required. The LPN-BSN program begins in the spring each year and is completed in three semesters.

The RN-BSN program enrolls RNs with current unencumbered licenses from Associate Degree in Nursing (ADN) and diploma nursing programs. The RN-BSN student's prior coursework is considered in terms of the Colorado Nursing Articulation Agreements. The RN-BSN program offers a flexible, accelerated model of instruction using an on-line format. Courses are offered in 8-week modules. There are five start dates and students may take one or two classes per session. The RN-BSN program is accredited by the CCNE. Admission to the University does not guarantee admission to the program.

The four-year Bachelor of Science in Nursing (BSN) program was developed to prepare a professional nurse generalist for practice in a variety of healthcare settings. The program integrates nursing theory, practice, and science with a broad liberal arts education. Graduates of the program enter the nursing profession with the knowledge and skill necessary to provide high-quality nursing care. The program also provides the foundation for graduate study in nursing. The BSN program utilizes a holistic admissions process that includes completion of all prerequisite courses and evaluation of GPA. Applicants who meet the qualifications are invited to interview for possible acceptance into the program. More information about the admission process can be found on the Department of Health Sciences website (https://www.coloradomesa.edu/health-sciences/index.html). The baccalaureate degree program in nursing is accredited by the Commission on Collegiate Nursing Education (https://www.aacnnursing.org/CCNE).

The Master of Science in Nursing (MSN) program prepares nurses for roles as family nurse practitioners (FNPs) or adult-gerontological nurse practitioners (AGNPs) in healthcare or academic settings. MSN graduates formulate clinical, administrative, and/or policy decisions to promote health among patients, families, or communities along the continuum of wellness and illness. Students complete a capstone project, based on their clinical areas of interest and substantive expertise. Graduates may continue to doctoral education. Courses are delivered via an on-line format, allowing students to reside in their home communities. However, students travel to complete clinical hours (e.g., rural health). Objective standardized clinical exams (OSCEs), and graduate program student intensive (GPSI) sessions are held in both in-person and online formats. Admission to the University does not guarantee admission to the program. The MSN program is accredited by the CCNE.

The Doctor of Nursing Practice (DNP) degree is for nurses who are interested in an advanced practice role as a family nurse practitioner (FNP) and nurse leader in healthcare systems. DNP graduates are prepared as experts in the delivery of direct patient care and in health systems change. The curriculum focuses on primary care across the life span, health policy, epidemiology, and evidence-based practice. Students must complete a DNP scholarly project which requires them to develop a systems-level intervention to address a gap in clinical practice. DNP courses are delivered on-line allowing students to reside in their home communities. However, students travel to complete clinical hours (e.g., rural health). Objective standardized clinical exams (OSCEs), and graduate program student intensive (GPSI) sessions are held in both in-person and online formats. Admission to the University does not guarantee admission to the program. The DNP program is accredited by the CCNE.

Special Requirements

Progression requirements: All nursing courses must be completed in sequence. In the traditional BSN program, all required 300-level courses must be completed before 400-level nursing courses may be taken. The graduate nursing programs (MSN and DNP) require a Bachelor of Science in Nursing degree from a nationally accredited institution.

Students transferring in credit for human anatomy and physiology taken at out-of-state accredited colleges/universities must provide evidence that these courses had separate laboratory components before the course can be accepted to fulfill program requirements.

High school courses in biology, chemistry and algebra are recommended. All non-nursing college courses must be completed before a student can be admitted to the nursing programs with the exception of the RN-BSN program. An admission committee selects students who best meet program requirements. All admission materials must be on file in the Department of Health Sciences prior to deadlines established for each program.

Application deadlines for each program are as follows:

- PN Program:
  - March 1 for fall entrance
- AAS Program
  - April 15 for fall entrance
- LPN–BSN Program:
  - September 15 for spring entrance
- RN-BSN:
  - Five start dates, please see dates online
- BSN Program:
  - Spring and Fall applications: refer to application and checklist for deadline dates
- MSN Program:
  - Rolling applications accepted for a fall start; refer to the Master of Science in Nursing webpage for details
- DNP Program:

- Rolling applications accepted for a fall start; refer to the Doctor of Nursing Practice webpage for details

Undergraduate students must have a 2.0 ("C") on a 4.0 scale or higher grade for all courses required for completion of the undergraduate nursing programs (PN, AAS, BSN, LPN-BSN, RN-BSN). This policy applies regardless of when the course was taken.

Graduate students must have a 3.0 ("B") on a 4.0 scale or higher grade for all courses required for completion of the graduate nursing programs (MSN, DNP). This policy applies regardless of when the courses were taken. A "C" grade or lower in any required course will not count toward graduation requirements. Refer to the Graduate Degree Requirements (p. 87) section of this catalog for complete degree requirements.

Students admitted to nursing programs must undergo a background check and drug screening and must maintain CPR certification and professional liability insurance for clinical practice. Students in the RN-BSN program must also maintain a current unencumbered nursing license. Students enrolling in graduate (MSN, DNP) nursing clinical courses are required to hold unencumbered RN licenses in states where clinical rotations are completed. Graduate nursing students must maintain RN licenses, cardiopulmonary resuscitation (CPR) certification, liability insurance, and current vaccinations for the duration of their graduate studies.

Contact Information

Department of Health Sciences
Health Sciences 101
970.248.1398

Programs of Study

Associates

- Nursing (AAS) (p. 677)

Bachelors/Minors

- LPN to BSN, Nursing (BSN) (p. 669)
- Nursing (BSN) (p. 672)
- RN to BSN, Nursing (BSN) (p. 675)

Certificates

- Practical Nursing (Technical Certificate) (p. 680)

Graduate

- Adult-Gerontology Nurse Practitioner (MSN) (p. 663)
- Doctor of Nursing Practice - Family Nurse Practitioner (DNP-FNP) (p. 661)
- Family Nurse Practitioner, Nursing (MSN) (p. 665)
- Nurse Educator, Nursing (MSN) (p. 667)

Doctor of Nursing Practice - Family Nurse Practitioner (DNP-FNP)

Degree: Doctor of Nursing Practice
Program of Study: Family Nurse Practitioner (FNP)
Program Code: 9611

The Doctor of Nursing Practice (DNP) is designed for those nurses who are interested in assuming an advanced nursing practice role as a Family Nurse Practitioner (FNP). DNP graduates are prepared as clinical experts in the delivery of primary care, with a focus on critical thinking, leadership, and policy skills needed to advocate and create changes in healthcare practice at all individual (patient and family) and aggregate (organization, community, public policy) levels. The program includes 1000 hours of immersion in clinical practice to build and assimilate knowledge for advanced practice at a high level of complexity. These experiences provide the context within which the final DNP scholarly project is completed.

The DNP degree is built upon the generalist foundation acquired through a baccalaureate in nursing; advanced placement is also available for students with a prior master's degree in nursing. Graduates prepared for an advance practice role as a Family Nurse Practitioner will demonstrate practice expertise, specialized knowledge, and expanded responsibility and accountability in the care and management of individuals and families.

The program uses an online delivery format, providing flexibility for students to remain in their current work positions and home communities. Opportunities for personal interactions are included with faculty and peers in focused intensive sessions at selected points during the semester. Students will complete most clinical requirements in their home communities, but may need to travel for specialized clinical experiences including rural health care settings.

Important information about this program:

- Admission to the program follows the general admissions policies & procedures for graduate programs outlined in the university catalog.
- A bachelor's degree in nursing from a regionally accredited college or university is required, prior to beginning the program. Applicants must have maintained a GPA of 3.0 or better in baccalaureate nursing coursework.
- 74 Semester Hours are required for the Doctor of Nursing Practice Degree.
- Applicants must hold a current, unrestricted license to practice as a registered nurse in their state of practice.
- It is recommended that students work closely with a faculty advisor when selecting courses and scheduling classes prior to registration.

All CMU doctoral-level graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, information literacy, and ethical reasoning. In addition to these campus-wide student learning outcomes, a graduate of this program will be able to:

1. Build intra and interprofessional collaboration to improve health-care quality across diverse populations. (CMU 2)
2. Compile and evaluate health care information systems to strengthen, support, or improve the health delivery system. (CMU 2)
3. Interpret social justice, equity, and ethical policies in health care for complex decision making for individuals and populations. (CMU 6)
4. Develop theoretical and scientific practice initiatives and/or policies for quality improvement to promote a culture of safety in diverse organizational cultures and populations. (CMU 1, 6)
5. Modify complex clinical situations and health care systems through the integration and utilization of evidence-based practice to promote optimal outcomes. (CMU 3)

6. Improve the delivery of care to individuals, families, and communities through advanced nursing science. (CMU 1, 4, 5)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Graduate Degree Requirements

The following institutional requirements apply to all CMU graduate-level degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Graduate certificates consist of a minimum of 5 credit hours. Master's degrees consist of a minimum of 30 credit hours. Doctoral degrees consist of a minimum of 60 credit hours
- All credits in a graduate program must be minimally at the 500-level.
- At least fifty percent of the credit hours must be taken at CMU.
- Students must achieve a 3.00 cumulative GPA or higher in all CMU coursework.
- Students may not apply coursework with a grade lower than a "B" toward graduation requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Graduate Degree Requirements (p. 87)" in this catalog for a complete list of graduation requirements.
- All policies for graduate degrees are outlined in the Graduate Policies and Procedures Manual, Capstone Guidelines Manual, and Thesis and Dissertation Guidelines Manual, all of which are provided on the Graduate Studies website.

Specific to this degree:

- 74 semester hours are required for the Doctor of Nursing Practice degree.

Program Specific Requirements

(74 semester hours, no class grade lower than a "B" will be counted toward the degree. It is recommended that students work closely with a faculty advisor when selecting courses and scheduling classes prior to registration.)

Code	Title	Semester Credit Hours
Required Core Courses		
NURS 500	Theoretical Foundations	3
NURS 501	Evidence-Based Practice	2
NURS 504	Advanced Health Policy and Ethics	2
NURS 505	Advanced Quality Improvement and Leadership	3
NURS 536	Leading Through Quality, Policy, and Ethics	3
NURS 625	Statistics for Health Sciences	2
NURS 626	Clinical Epidemiology	2
NURS 700	Translational Evidence-Based Practice	2
Advanced Nursing Practice Cognate		
NURS 525	Advanced Pathophysiology	3
NURS 526	Advanced Pharmacology for Nursing	3
NURS 527	Advanced Health Assessment	2
NURS 535	Health Promotion and Disease Prevention	2
NURS 577	Clinical Practicum: Advanced Health Assessment	1
NURS 586	Clinical Practicum: Procedures and Diagnostic Testing	2
NURS 600	Advanced Practice Nursing Issues	2
NURS 601	Primary Care of the Infant, Child, and Adolescent	3
NURS 602	Primary Care of the Adult	3
NURS 603	Primary Care of the Older Person	3
NURS 604	Primary Care of Rural and Underserved Populations	1
NURS 605	Mental and Behavioral Health	2
NURS 610	Clinical Practicum: Infant, Child, and Adolescent	2
NURS 615	Clinical Practicum: Mental and Behavioral Health	1
NURS 620	Clinical Practicum: Adult	3
NURS 627	Health Systems in Advanced Nursing Practice	2
NURS 630	Clinical Practicum: Older Person	3
NURS 640	Clinical Practicum Capstone: Primary Care of Rural and Underserved Populations	3
NURS 650	Clinical Preceptorship I	3
NURS 652	Clinical Preceptorship II	3
DNP Scholarly Project		
NURS 660	Doctor of Nursing Practice Scholarly Project: Identification	2
NURS 750	Doctor of Nursing Practice Scholarly Project: Design and Defend	3
NURS 760	Doctor of Nursing Practice Scholarly Project: Implementation and Evaluation	3
Other Requirements		
Oral Defense of Proposal		
Total Semester Credit Hours		**74**

Suggested Course Plan

First Year

Fall Semester		Semester Credit Hours
NURS 500	Theoretical Foundations	3
NURS 501	Evidence-Based Practice	2

NURS 525	Advanced Pathophysiology	3
	Semester Credit Hours	**8**
Spring Semester		
NURS 526	Advanced Pharmacology for Nursing	3
NURS 527	Advanced Health Assessment	2
NURS 577	Clinical Practicum: Advanced Health Assessment	1
	Semester Credit Hours	**6**
Summer Semester		
NURS 535	Health Promotion and Disease Prevention	2
NURS 586	Clinical Practicum: Procedures and Diagnostic Testing	2
	Semester Credit Hours	**4**
Second Year		
Fall Semester		
NURS 605	Mental and Behavioral Health	2
NURS 615	Clinical Practicum: Mental and Behavioral Health	1
NURS 602	Primary Care of the Adult	3
NURS 620	Clinical Practicum: Adult	3
	Semester Credit Hours	**9**
Spring Semester		
NURS 601	Primary Care of the Infant, Child, and Adolescent	3
NURS 603	Primary Care of the Older Person	3
NURS 610	Clinical Practicum: Infant, Child, and Adolescent	2
NURS 630	Clinical Practicum: Older Person	3
	Semester Credit Hours	**11**
Summer Semester		
NURS 536	Leading Through Quality, Policy, and Ethics	3
	Semester Credit Hours	**3**
Third Year		
Fall Semester		
NURS 600	Advanced Practice Nursing Issues	2
NURS 604	Primary Care of Rural and Underserved Populations	1
NURS 640	Clinical Practicum Capstone: Primary Care of Rural and Underserved Populations	3
	Semester Credit Hours	**6**
Spring Semester		
NURS 505	Advanced Quality Improvement and Leadership	3
NURS 625	Statistics for Health Sciences	2
NURS 660	Doctor of Nursing Practice Scholarly Project: Identification	2
	Semester Credit Hours	**7**
Summer Semester		
NURS 627	Health Systems in Advanced Nursing Practice	2
	Semester Credit Hours	**2**
Fourth Year		
Fall Semester		
NURS 626	Clinical Epidemiology	2
NURS 700	Translational Evidence-Based Practice	2
	Semester Credit Hours	**4**
Spring Semester		
NURS 650	Clinical Preceptorship I	3
NURS 750	Doctor of Nursing Practice Scholarly Project: Design and Defend	3
	Semester Credit Hours	**6**
Summer Semester		
NURS 504	Advanced Health Policy and Ethics	2
	Semester Credit Hours	**2**
Fifth Year		
Fall Semester		
NURS 652	Clinical Preceptorship II	3
NURS 760	Doctor of Nursing Practice Scholarly Project: Implementation and Evaluation	3
	Semester Credit Hours	**6**
	Total Semester Credit Hours	**74**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Adult-Gerontology Nurse Practitioner (MSN)

Overview

Degree: Master of Science in Nursing
Cognate: Adult-Gerontology Nurse Practitioner
Program Code: 8616

The Master of Science in Nursing (MSN) program Adult-Gerontology Nurse Practitioner (AGNP) cognate is designed for students wishing to practice as primary care nurse practitioners with adult and older adult populations. Graduates of MSN programs are prepared with additional knowledge and clinical expertise that builds on baccalaureate nursing

practice. The MSN program at Colorado Mesa University is based on the Essentials: Core Competencies for Professional Nursing Education and the Standards for Quality Nurse Practitioner Education.

MSN graduates will be prepared to advance to higher levels of nursing education including Doctor of Nursing Practice (DNP), Doctor of Education (EdD), or Doctor of Philosophy in Nursing (PhD) programs. The MSN program is delivered via an online format, providing flexibility for students to remain in their home communities. However, students may need to travel for clinical rotations (e.g. rural health care) or focused intensive sessions during the program.

Graduates of the AGNP program are prepared for an advance practice role as an adult-gerontology primary care nurse practitioner. Graduates will demonstrate practice expertise, specialized knowledge, and expanded responsibilities in the care and management of adult and older adult populations, including those residing in rural or underserved areas.

Important information for this program:

- There are 46 credit hours for the MSN in Nursing: Adult-Gerontology Nurse Practitioner degree. Students are required to complete a minimum of 750 clinical hours.
- Students are expected to participate in objective structured clinical examinations (OSCEs) each semester. OSCEs are held both in person and virtually and are used to assess students' attainment of clinical competencies.
- Admission to the Graduate Nursing Program follows general admission policies and procedures for graduate programs outlined in the university catalog.
- A bachelor's degree in nursing (BSN) from an accredited college or university is required, prior to beginning the program. Applicants must have maintained a GPA of 3.0 or better in baccalaureate nursing coursework.
- Applicants must hold a current, unrestricted license to practice as a registered nurse (RN) in their state of practice.
- It is recommended that students work closely with their faculty advisors when selecting courses and scheduling classes prior to registration.

All CMU masters-level graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, information literacy, and ethical reasoning. In addition to these campus-wide student learning outcomes, a graduate of this program will be able to:

1. Discover nursing leadership skills and behaviors for communication and interprofessional collaboration. (Specialized Knowledge/Applied Learning, Communication Fluency)
2. Analyze quality improvement initiatives to generate or evaluate data for the practice environment. (Quantitative Fluency)
3. Utilize information literacy for interprofessional collaboration, learning, and practice. (Information Literacy)
4. Evaluate legal, ethical, and regulatory processes that impact professional nursing practice. (Ethical reasoning)
5. Create culturally relevant evidence-based health policy strategies for individual and aggregate populations. (Information Literacy)
6. Synthesize nursing and related sciences for applied learning across diverse populations. (Specialized Knowledge; Critical Thinking)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Graduate Degree Requirements

The following institutional requirements apply to all CMU graduate-level degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Graduate certificates consist of a minimum of 5 credit hours. Master's degrees consist of a minimum of 30 credit hours. Doctoral degrees consist of a minimum of 60 credit hours.
- All credits in a graduate program must be minimally at the 500-level.
- At least fifty percent of the credit hours must be taken at CMU.
- Students must achieve a 3.00 cumulative GPA or higher in all CMU coursework.
- Students may not apply coursework with a grade lower than a "B" toward graduation requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Graduate Degree Requirements (p. 87)" in this catalog for a complete list of graduation requirements.
- All policies for graduate degrees are outlined in the Graduate Policies and Procedures Manual, Capstone Guidelines Manual, and Thesis and Dissertation Guidelines Manual, all of which are provided on the Graduate Studies website.

Specific to this program:

- 46 semester hours are required for the MSN in Nursing: Adult-Gerontology Nurse Practitioner degree.

Program Specific Degree Requirements

(46 semester hours)

Code	Title	Semester Credit Hours
Required Core Courses		
NURS 500	Theoretical Foundations	3
NURS 501	Evidence-Based Practice	2

NURS 525	Advanced Pathophysiology	3
NURS 526	Advanced Pharmacology for Nursing	3
NURS 527	Advanced Health Assessment	2
NURS 535	Health Promotion and Disease Prevention	2
NURS 536	Leading Through Quality, Policy, and Ethics	3
NURS 577	Clinical Practicum: Advanced Health Assessment	1
Adult-Gerontology Nurse Practitioner Cognate		
NURS 586	Clinical Practicum: Procedures and Diagnostic Testing	2
NURS 600	Advanced Practice Nursing Issues	2
NURS 597	Clinical Practicum: Congregate Care of Adults & Older Persons	2
NURS 575	Capstone Project	2
NURS 602	Primary Care of the Adult	3
NURS 603	Primary Care of the Older Person	3
NURS 604	Primary Care of Rural and Underserved Populations	1
NURS 605	Mental and Behavioral Health	2
NURS 615	Clinical Practicum: Mental and Behavioral Health	1
NURS 620	Clinical Practicum: Adult	3
NURS 630	Clinical Practicum: Older Person	3
NURS 640	Clinical Practicum Capstone: Primary Care of Rural and Underserved Populations	3
Total Semester Credit Hours		**46**

Suggested Course Plan

First Year		
Spring Semester		**Semester Credit Hours**
NURS 526	Advanced Pharmacology for Nursing	3
NURS 527	Advanced Health Assessment	2
NURS 577	Clinical Practicum: Advanced Health Assessment	1
	Semester Credit Hours	**6**
Summer Semester		
NURS 536	Leading Through Quality, Policy, and Ethics	3
	Semester Credit Hours	**3**
Fall Semester		
NURS 500	Theoretical Foundations	3
NURS 525	Advanced Pathophysiology	3
	Semester Credit Hours	**6**
Second Year		
Spring Semester		
NURS 501	Evidence-Based Practice	2
NURS 603	Primary Care of the Older Person	3
NURS 630	Clinical Practicum: Older Person	3
	Semester Credit Hours	**8**
Summer Semester		
NURS 586	Clinical Practicum: Procedures and Diagnostic Testing	2
NURS 600	Advanced Practice Nursing Issues	2
	Semester Credit Hours	**4**
Fall Semester		
NURS 535	Health Promotion and Disease Prevention	2
NURS 602	Primary Care of the Adult	3
NURS 620	Clinical Practicum: Adult	3
	Semester Credit Hours	**8**
Third Year		
Spring Semester		
NURS 575	Capstone Project	2
NURS 604	Primary Care of Rural and Underserved Populations	1
NURS 640	Clinical Practicum Capstone: Primary Care of Rural and Underserved Populations	3
	Semester Credit Hours	**6**
Fall Semester		
NURS 597	Clinical Practicum: Congregate Care of Adults & Older Persons	2
NURS 605	Mental and Behavioral Health	2
NURS 615	Clinical Practicum: Mental and Behavioral Health	1
	Semester Credit Hours	**5**
	Total Semester Credit Hours	**46**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Family Nurse Practitioner, Nursing (MSN)

Degree: Master of Science in Nursing

Major: Nursing
Cognate: Family Nurse Practitioner (FNP)
Program Code: 8615

The Family Nurse Practitioner program at the Master of Science in Nursing (MSN) level is designed for students wishing to practice as advanced practice nurses in primary care across the lifespan. Graduates of master's degree programs in nursing are prepared with additional knowledge and clinical expertise building on baccalaureate nursing practice. The MSN program at Colorado Mesa University is based on the "Essentials of Masters Education for Advanced Nursing Practice" identified by the American Association of Colleges of Nursing.

MSN graduates will be prepared to advance to higher levels of nursing education including Doctor of Nursing Practice (DNP) or Doctor of Philosophy in Nursing (PhD) programs. The program is an online format, providing flexibility for students to remain in their current work positions and home communities. Opportunities for personal interaction are included with faculty and peers in focused intensive sessions at selected points during the program. Students are expected to participate in objective structured clinical examinations (OSCEs) each semester. OSCEs are held both in person and virtually and are used to assess students' attainment of clinical competencies.

Graduates of the Family Nurse Practitioner cognate are prepared for an advance practice role as a Family Nurse Practitioner and will demonstrate practice expertise, specialized knowledge, and expanded responsibility and accountability in the care and management of individuals and families.

Important information for this program:

- There are 49 credit hours for the MSN in Nursing: Family Nurse Practitioner.
- Admission to the program follows general admission policies and procedures for graduate programs outlined in the university catalog.
- A bachelor's degree in nursing from a regionally accredited college or university is required, prior to beginning the program. Applicants must have maintained a GPA of 3.0 or better in baccalaureate nursing coursework.
- Applicants must hold a current, unrestricted license to practice as a registered nurse in their state of licensure.
- It is recommended that students work closely with a faculty advisor when selecting courses and scheduling classes prior to registration.

All CMU masters-level graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, information literacy, and ethical reasoning. In addition to these campus-wide student learning outcomes, a graduate of this program will be able to:

1. Discover nursing leadership skills and behaviors for communication and interprofessional collaboration. (Specialized Knowledge/Applied Learning, Communication Fluency)
2. Analyze quality improvement initiatives to generate or evaluate data for the practice environment. (Quantitative Fluency)
3. Utilize information literacy for interprofessional collaboration, learning, and practice. (Information Literacy)
4. Evaluate legal, ethical, and regulatory processes that impact professional nursing practice. (Ethical reasoning)
5. Create culturally relevant evidence-based health policy strategies for individual and aggregate populations. (Information Literacy)
6. Synthesize nursing and related sciences for applied learning across diverse populations. (Specialized Knowledge; Critical Thinking)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Graduate Degree Requirements

The following institutional requirements apply to all CMU graduate-level degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Graduate certificates consist of a minimum of 5 credit hours. Master's degrees consist of a minimum of 30 credit hours. Doctoral degrees consist of a minimum of 60 credit hours.
- All credits in a graduate program must be minimally at the 500-level.
- At least fifty percent of the credit hours must be taken at CMU.
- Students must achieve a 3.00 cumulative GPA or higher in all CMU coursework.
- Students may not apply coursework with a grade lower than a "B" toward graduation requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Graduate Degree Requirements (p. 87)" in this catalog for a complete list of graduation requirements.
- All policies for graduate degrees are outlined in the Graduate Policies and Procedures Manual, Capstone Guidelines Manual, and Thesis and Dissertation Guidelines Manual, all of which are provided on the Graduate Studies website.

Specific to this program:

- 49 semester hours are required for the MSN in Nursing: Family Nurse Practitioner (FNP) degree.

Program Specific Requirements

Code	Title	Semester Credit Hours
Required Core Courses		
NURS 500	Theoretical Foundations	3

NURS 501	Evidence-Based Practice	2
NURS 525	Advanced Pathophysiology	3
NURS 526	Advanced Pharmacology for Nursing	3
NURS 527	Advanced Health Assessment	2
NURS 535	Health Promotion and Disease Prevention	2
NURS 536	Leading Through Quality, Policy, and Ethics	3
NURS 577	Clinical Practicum: Advanced Health Assessment	1
Family Nurse Practitioner Cognate		
NURS 586	Clinical Practicum: Procedures and Diagnostic Testing	2
NURS 600	Advanced Practice Nursing Issues	2
NURS 601	Primary Care of the Infant, Child, and Adolescent	3
NURS 602	Primary Care of the Adult	3
NURS 603	Primary Care of the Older Person	3
NURS 604	Primary Care of Rural and Underserved Populations	1
NURS 605	Mental and Behavioral Health	2
NURS 610	Clinical Practicum: Infant, Child, and Adolescent	2
NURS 615	Clinical Practicum: Mental and Behavioral Health	1
NURS 620	Clinical Practicum: Adult	3
NURS 630	Clinical Practicum: Older Person	3
NURS 640	Clinical Practicum Capstone: Primary Care of Rural and Underserved Populations	3
NURS 575	Capstone Project	2
Total Semester Credit Hours		**49**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
NURS 500	Theoretical Foundations	3
NURS 525	Advanced Pathophysiology	3
	Semester Credit Hours	**6**
Spring Semester		
NURS 526	Advanced Pharmacology for Nursing	3
NURS 527	Advanced Health Assessment	2
NURS 577	Clinical Practicum: Advanced Health Assessment	1
	Semester Credit Hours	**6**
Summer Semester		
NURS 536	Leading Through Quality, Policy, and Ethics	3
	Semester Credit Hours	**3**
Second Year		
Fall Semester		
NURS 535	Health Promotion and Disease Prevention	2
NURS 602	Primary Care of the Adult	3
NURS 620	Clinical Practicum: Adult	3
	Semester Credit Hours	**8**
Spring Semester		
NURS 501	Evidence-Based Practice	2
NURS 603	Primary Care of the Older Person	3
NURS 630	Clinical Practicum: Older Person	3
	Semester Credit Hours	**8**
Summer Semester		
NURS 586	Clinical Practicum: Procedures and Diagnostic Testing	2
NURS 600	Advanced Practice Nursing Issues	2
	Semester Credit Hours	**4**
Third Year		
Fall Semester		
NURS 601	Primary Care of the Infant, Child, and Adolescent	3
NURS 605	Mental and Behavioral Health	2
NURS 610	Clinical Practicum: Infant, Child, and Adolescent	2
NURS 615	Clinical Practicum: Mental and Behavioral Health	1
	Semester Credit Hours	**8**
Spring Semester		
NURS 575	Capstone Project	2
NURS 604	Primary Care of Rural and Underserved Populations	1
NURS 640	Clinical Practicum Capstone: Primary Care of Rural and Underserved Populations	3
	Semester Credit Hours	**6**
	Total Semester Credit Hours	**49**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Nurse Educator, Nursing (MSN)

Degree: Master of Science in Nursing
Cognate: Nurse Educator

Program Code: 8614

This program is no longer accepting new students.

The Master of Science in Nursing (MSN) degree provides graduates with a foundation for practice as an entry-level educator in health care systems or academic settings. MSN graduates are prepared with additional knowledge and clinical expertise building on baccalaureate nursing practice. The MSN program at Colorado Mesa University is based on the "Essentials of Masters Education for Advanced Nursing Practice" identified by the American Association of Colleges of Nursing.

The MSN program is designed for students already possessing a baccalaureate degree in nursing and adds the first graduate step on the nursing career ladder at Colorado Mesa University. MSN graduates are prepared to advance to higher levels of nursing education including Doctor of Nursing Practice (DNP) or Doctor of Philosophy in Nursing (PhD) programs. The program is offered in an online format, providing flexibility for students to remain in their current work positions and home communities. Opportunities for personal interaction are included with faculty and peers in focused intensive sessions at selected points. Students are expected to participate in objective structured clinical examinations (OSCEs) each semester. OSCEs are held both in person and virtually and are used to assess students' attainment of clinical competencies.

Important information for this program:

- Admission to the MSN Nurse Educator program follows the general admissions policies & procedures for graduate programs outlined in the university catalog.
- A bachelor's degree in nursing from a regionally accredited college or university is required, prior to beginning the program. Applicants must have maintained a GPA of 3.0 or better in baccalaureate nursing coursework.
- 36 semester hours are required for the MSN Nurse Educator degree.
- Applicants must hold a current, unrestricted license to practice as a registered nurse in their state of practice.
- It is recommended that students work closely with a faculty advisor when selecting courses and scheduling classes prior to registration.

All CMU masters-level graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, information literacy, and ethical reasoning. In addition to these campus-wide student learning outcomes, a graduate of this program will be able to:

1. Discover nursing leadership skills and behaviors for communication and interprofessional collaboration. (Specialized Knowledge/Applied Learning, Communication Fluency)
2. Analyze quality improvement initiatives to generate or evaluate data for the practice environment. (Quantitative Fluency)
3. Utilize information literacy for interprofessional collaboration, learning, and practice. (Information Literacy)
4. Evaluate legal, ethical, and regulatory processes that impact professional nursing practice. (Ethical reasoning)
5. Create culturally relevant evidence-based health policy strategies for individual and aggregate populations. (Information Literacy)
6. Synthesize nursing and related sciences for applied learning across diverse populations. (Specialized Knowledge; Critical Thinking)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Graduate Degree Requirements

The following institutional requirements apply to all CMU graduate-level degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Graduate certificates consist of a minimum of 5 credit hours. Master's degrees consist of a minimum of 30 credit hours. Doctoral degrees consist of a minimum of 60 credit hours.
- All credits in a graduate program must be minimally at the 500-level.
- At least fifty percent of the credit hours must be taken at CMU.
- Students must achieve a 3.00 cumulative GPA or higher in all CMU coursework.
- Students may not apply coursework with a grade lower than a "B" toward graduation requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Graduate Degree Requirements (p. 87)" in this catalog for a complete list of graduation requirements.
- All policies for graduate degrees are outlined in the Graduate Policies and Procedures Manual, Capstone Guidelines Manual, and Thesis and Dissertation Guidelines Manual, all of which are provided on the Graduate Studies website.

Specific to this program:

- 36 semester hours are required for the Master of Science in Nursing, Nurse Educator degree.

Program Specific Requirements

(36 semester hours, must earn a grade of "B" or better in each course. It is recommended that students work closely with a faculty advisor when selecting courses and scheduling classes prior to registration.)

Code	Title	Semester Credit Hours
Required Core Courses		
NURS 500	Theoretical Foundations	3
NURS 501	Evidence-Based Practice	3
NURS 536	Leading Through Quality, Policy, and Ethics	3
NURS 525	Advanced Pathophysiology	3
NURS 526	Advanced Pharmacology for Nursing	3
NURS 527	Advanced Health Assessment	2
NURS 535	Health Promotion and Disease Prevention	2
NURS 577	Clinical Practicum: Advanced Health Assessment	1
Nurse Educator Cognate Requirements		
NURS 502	Technology for the Nurse Educator	3
NURS 540	Teaching Strategies for the Nurse Educator	3
NURS 545	Curriculum Design/Evaluation	3
NURS 545L	Curriculum Design/Evaluation Laboratory	1
Other Requirements		
Completion of Oral Comprehensive Exam		
NURS 560	Nurse Educator Practicum	3
NURS 565	Role Development: Nurse Educator	3
Total Semester Credit Hours		**36**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
NURS 500	Theoretical Foundations	3
NURS 501	Evidence-Based Practice	3
NURS 525	Advanced Pathophysiology	3
	Semester Credit Hours	**9**
Spring Semester		
NURS 526	Advanced Pharmacology for Nursing	3
NURS 527	Advanced Health Assessment	2
NURS 540	Teaching Strategies for the Nurse Educator	3
NURS 577	Clinical Practicum: Advanced Health Assessment	1
	Semester Credit Hours	**9**
Summer Semester		
NURS 535	Health Promotion and Disease Prevention	2
NURS 536	Leading Through Quality, Policy, and Ethics	3
	Semester Credit Hours	**5**
Second Year		
Fall Semester		
NURS 502	Technology for the Nurse Educator	3
NURS 545	Curriculum Design/Evaluation	3
NURS 545L	Curriculum Design/Evaluation Laboratory	1
	Semester Credit Hours	**7**
Spring Semester		
NURS 560	Nurse Educator Practicum	3
NURS 565	Role Development: Nurse Educator	3
	Semester Credit Hours	**6**
	Total Semester Credit Hours	**36**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

LPN to BSN, Nursing (BSN)

Degree: Bachelor of Science in Nursing
Major: Nursing
Concentration: LPN-BSN Option
Program Code: 3610

The Bachelor of Science in Nursing (LPN-BSN option) is approved by the Colorado State Board of Nursing. This program is designed for Licensed Practical Nurses to achieve a bachelor of science in Nursing Degree, opening up greater employment opportunities, increased compensation, and more job security. The LPN-BSN program integrates nursing theory, practice and science with a liberal arts education. This program has selective admission requirements. It is the student's responsibility to obtain the current admission requirements.

All Essential Learning requirements, other lower-division requirements, and foundation courses must be in progress or completed before applying to the program with a C or higher. Additional admission requirements also apply. Please visit the Department of Health Sciences'

website for a complete list of admission requirements and program information.

Specific Requirements for this degree:

- Science courses will be accepted if they have been taken within the last 10 years.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Integrate knowledge, skills, and attitudes to advance the nursing discipline in a practice-based project. (Specialized Knowledge)
2. Analyze data to demonstrate clinical judgment for safe high-quality nursing practice. (Quantitative Fluency)
3. Make and defend assertions about a nursing practice topic in a well-organized evidence-based document or presentation. (Communication Fluency)
4. Demonstrate critical thinking behaviors as a basis for practice. (Critical Thinking)
5. Utilize information literacy seeking skills to improve health among diverse populations. (Information Literacy)
6. Demonstrate ethical, personal, and social responsibility when providing high-quality nursing care. (Personal and Social Responsibility)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 110	Mathematical Investigations-GTMA1	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
PSYC 150	General Psychology-GTSS3	3
PSYC 233	Human Growth and Development-GTSS3	3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences		
Select one Natural Sciences course		3
BIOL 250 & 250L	Introduction to Microbiology-GTSC1 and Introduction to Microbiology Laboratory-GTSC1	4
Total Semester Credit Hours		**31**

[1] Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(15-16 semester hours)

Code	Title	Semester Credit Hours
BIOL 209	Human Anatomy and Physiology I	3
BIOL 209L	Human Anatomy and Physiology I Laboratory	1
BIOL 210	Human Anatomy and Physiology II	3
BIOL 210L	Human Anatomy and Physiology II Laboratory	1
BIOL 241	Pathophysiology	4
STAT 200	Probability and Statistics-GTMA1	3-4
or STAT 215	Statistics for Social and Behavioral Sciences	
Total Semester Credit Hours		**15-16**

Program Specific Degree Requirements

(68 semester hours, must pass all courses with a grade of "C" or higher and maintain a 2.0 cumulative GPA or higher in coursework in this area.)

Code	Title	Semester Credit Hours
27 credits from LPN		27
NURS 318	Health Assessment and Promotion	3
NURS 318L	Health Assessment and Promotion Laboratory	1
NURS 329	Adult Health	4
NURS 329L	Adult Health Clinical	3
NURS 333	Pharmacology for the RN	2
NURS 400	Nursing Research	3
NURS 421	Population Health	3
NURS 421L	Population Health Clinical	2
NURS 427	Mental Health	3
NURS 427L	Mental Health Clinical	1
NURS 429	Complex Adult Health	3
NURS 429L	Complex Adult Health Clinical	3
NURS 431	High Risk Obstetrics and Pediatrics	3
NURS 431L	High Risk Obstetrics and Pediatrics Clinical	2
NURS 449	Leadership	2
NURS 449L	Leadership Clinical	1
NURS 470L	Capstone Clinical	2
Total Semester Credit Hours		**68**

Suggested Course Plan

First Year

Fall Semester		Semester Credit Hours
ENGL 111	English Composition I-GTCO1	3
MATH 110	Mathematical Investigations-GTMA1 (or higher)	3
BIOL 209 & 209L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Laboratory	4
Essential Learning - Fine Arts		3
KINA Activity		1
PSYC 150	General Psychology-GTSS3	3
	Semester Credit Hours	**17**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
BIOL 210 & 210L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Laboratory	4
PSYC 233	Human Growth and Development-GTSS3	3
Essential Learning - Natural Science		3
BIOL 241	Pathophysiology	4
	Semester Credit Hours	**17**
Second Year		
Fall Semester		
LPN with IV certification 27 credits transfer for 2nd year		27
	Semester Credit Hours	**27**
Third Year		
Fall Semester		
STAT 200 or STAT 215	Probability and Statistics-GTMA1 or Statistics for Social and Behavioral Sciences	3-4
KINE 100	Health and Wellness	1
ESSL 200	Essential Speech	1
ESSL 290	Maverick Milestone	3
Essential Learning - History		3
Essential Learning - Humanities		3
BIOL 250 & 250L	Introduction to Microbiology-GTSC1 and Introduction to Microbiology Laboratory-GTSC1	4
	Semester Credit Hours	**18-19**
Spring Semester		
NURS 318 & 318L	Health Assessment and Promotion and Health Assessment and Promotion Laboratory	4
NURS 329 & 329L	Adult Health and Adult Health Clinical	7
NURS 333	Pharmacology for the RN	2
NURS 400	Nursing Research	3
	Semester Credit Hours	**16**
Summer Semester		
NURS 421 & 421L	Population Health and Population Health Clinical	5
NURS 427 & 427L	Mental Health and Mental Health Clinical	4
	Semester Credit Hours	**9**
Fourth Year		
Fall Semester		
NURS 429 & 429L	Complex Adult Health and Complex Adult Health Clinical	6
NURS 431 & 431L	High Risk Obstetrics and Pediatrics and High Risk Obstetrics and Pediatrics Clinical	5
NURS 449 & 449L	Leadership and Leadership Clinical	3

NURS 470L	Capstone Clinical	2
	Semester Credit Hours	**16**
	Total Semester Credit Hours	**120-121**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Nursing (BSN)

Degree: Bachelor of Science in Nursing
Major: Nursing
Program Code: 3611

The four-year Bachelor of Science in Nursing (BSN) program was developed to prepare a professional nurse generalist for practice in a variety of healthcare settings. The program integrates nursing theory, practice, and science with a broad liberal arts education. Graduates of the program enter the nursing profession with the knowledge and skill necessary to provide high-quality nursing care. The program also provides the foundation for graduate study in nursing. The BSN program utilizes a holistic admissions process that includes completion of all prerequisite courses and evaluation of GPA and Kaplan Nursing School Entrance exam score. Applicants who meet the qualifications are invited to interview for possible acceptance into the program. More information about the admission process can be found on the Department of Health Sciences website. The baccalaureate degree program in nursing, master's degree program in nursing, and Doctor of Nursing Practice program at CMU are accredited by the Commission on Collegiate Nursing Education (CCNE).

Specific Requirements of the Program:

- Science courses will be accepted if they have been taken within the last 10 years.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Integrate knowledge, skills, and attitudes to advance the nursing discipline in a practice-based project. (Specialized Knowledge)
2. Analyze data to demonstrate clinical judgment for safe high-quality nursing practice. (Quantitative Fluency)
3. Articulate evidence-based practice conclusions for nursing practice to improve client outcomes. (Communication fluency)
4. Demonstrate critical thinking behaviors as a basis for practice. (Critical Thinking)
5. Utilize information literacy seeking skills to improve health among diverse populations. (Information Literacy)
6. Demonstrate ethical, personal, and social responsibility when providing high-quality nursing care. (Personal and Social Responsibility)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.

- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 113	College Algebra-GTMA1 [2]	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
PSYC 150	General Psychology-GTSS3	3
PSYC 233	Human Growth and Development-GTSS3	3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences		
Select one Natural Sciences course		3
BIOL 250	Introduction to Microbiology-GTSC1	3
BIOL 250L	Introduction to Microbiology Laboratory-GTSC1	1
Total Semester Credit Hours		**31**

[1] Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

[2] This is a 4 semester credit hour course. 3 credits apply to the Essential Learning requirement and 1 credit applies to Electives.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(15-16 semester hours, must pass all courses with a grade of "C" or higher)

Code	Title	Semester Credit Hours
BIOL 209	Human Anatomy and Physiology I	3
BIOL 209L	Human Anatomy and Physiology I Laboratory	1
BIOL 210	Human Anatomy and Physiology II	3
BIOL 210L	Human Anatomy and Physiology II Laboratory	1
BIOL 241	Pathophysiology	4
STAT 200 or STAT 215	Probability and Statistics-GTMA1 Statistics for Social and Behavioral Sciences	3-4
Total Semester Credit Hours		**15-16**

Program Specific Degree Requirements

(64 semester hours, must pass all courses with a grade of "C" or higher and maintain a 2.00 cumulative GPA or higher in coursework in this area.)

Code	Title	Semester Credit Hours
NURS 350	Health Assessment Across the Lifespan	3
NURS 350L	Health Assessment Across the Lifespan Laboratory	1
NURS 353	Foundation of Nursing Practice	4
NURS 353L	Foundations of Nursing Practice Laboratory	3
NURS 370	Pharmacology for Nurses I	3
NURS 372	Professional Development I: Nursing Theory, Roles and Ethics	2
NURS 373	Acute and Chronic Illness I	4
NURS 373L	Acute and Chronic Illness I Clinical	4
NURS 388	Mental Health Nursing	3
NURS 388L	Mental Health Nursing Clinical	2
NURS 394	Nursing Research: An Evidence-Based Practice	2
NURS 457	Obstetrical Nursing	2
NURS 458	Pediatric Nursing	2
NURS 459L	Obstetrical and Pediatric Nursing Clinical	3

NURS 472	Professional Development II: Health Informatics	2
NURS 473	Acute and Chronic Illness II	4
NURS 473L	Acute and Chronic Illness II Clinical	3
NURS 482	Professional Development III: The Professional Nurse	2
NURS 487	Community and Population Nursing	3
NURS 487L	Community and Population Nursing Clinical	2
NURS 490	Nursing Leadership and Management	3
NURS 490L	Nursing Leadership and Management Clinical	1
NURS 492	Pharmacology for Nurses II	2
Complete one of the following Capstone Clinical options:		4
NURS 493L	Senior Capstone Clinical	
NURS 493A & NURS 493B	Senior Capstone Clinical I and Senior Capstone Clinical II [1]	
Total Semester Credit Hours		**64**

[1] Students who are currently passing their courses and will be completing the BSN program in the spring semester may be eligible to take **NURS 493A** in December & **NURS 493B** in January between the fall and spring semester. These course offerings are the same course as NURS 493L. The number of community clinical sites and faculty availability over December (NURS 493A) and January (NURS 493B) determine space availability in these special course sections.

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours. 3-4 semester hours

Code	Title	Semester Credit Hours
MATH 113	College Algebra-GTMA1	1
Select additional elective(s)		2-3
Total Semester Credit Hours		**3-4**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
PSYC 150	General Psychology-GTSS3	3
KINE 100	Health and Wellness	1
Essential Learning - History		3
Essential Learning - Natural Science		3
	Semester Credit Hours	**13**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
PSYC 233	Human Growth and Development-GTSS3	3
Essential Learning - Humanities		3
KINA Activity		1
BIOL 209 & 209L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Laboratory	4
	Semester Credit Hours	**14**
Second Year		
Fall Semester		
BIOL 250 & 250L	Introduction to Microbiology-GTSC1 and Introduction to Microbiology Laboratory-GTSC1	4
Essential Learning - Fine Arts		3
MATH 113	College Algebra-GTMA1	4
General Elective (2-3 credit hours as needed)		3
	Semester Credit Hours	**14**
Spring Semester		
BIOL 210 & 210L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Laboratory	4
BIOL 241	Pathophysiology	4
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
STAT 200 or STAT 215	Probability and Statistics-GTMA1 or Statistics for Social and Behavioral Sciences	3-4
	Semester Credit Hours	**15-16**
Third Year		
Fall Semester		
NURS 350 & 350L	Health Assessment Across the Lifespan and Health Assessment Across the Lifespan Laboratory	4
NURS 353 & 353L	Foundation of Nursing Practice and Foundations of Nursing Practice Laboratory	7
NURS 370	Pharmacology for Nurses I	3
NURS 372	Professional Development I: Nursing Theory, Roles and Ethics	2
	Semester Credit Hours	**16**
Spring Semester		
NURS 373 & 373L	Acute and Chronic Illness I and Acute and Chronic Illness I Clinical	8
NURS 388 & 388L	Mental Health Nursing and Mental Health Nursing Clinical	5
NURS 394	Nursing Research: An Evidence-Based Practice	2
	Semester Credit Hours	**15**
Fourth Year		
Fall Semester		
NURS 457	Obstetrical Nursing	2
NURS 458	Pediatric Nursing	2
NURS 459L	Obstetrical and Pediatric Nursing Clinical	3
NURS 472	Professional Development II: Health Informatics	2
NURS 473 & 473L	Acute and Chronic Illness II and Acute and Chronic Illness II Clinical	7
	Semester Credit Hours	**16**
Spring Semester		
NURS 482	Professional Development III: The Professional Nurse	2
NURS 487 & 487L	Community and Population Nursing and Community and Population Nursing Clinical	5
NURS 490 & 490L	Nursing Leadership and Management and Nursing Leadership and Management Clinical	4
NURS 492	Pharmacology for Nurses II	2
NURS 493L	Senior Capstone Clinical	4
	Semester Credit Hours	**17**
	Total Semester Credit Hours	**120-121**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential

in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

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Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

RN to BSN, Nursing (BSN)

Degree: Bachelor of Science in Nursing
Major: Nursing
Concentration: RN-BSN Option
Program Code: 3613

The Registered Nurse to Baccalaureate of Science in Nursing (BSN) Program is accredited by the Commission on Collegiate Nursing Education (CCNE). This program is designed for Associate degree and Diploma RNs. Up to 38 credits from the Associate or diploma degree may transfer toward this BSN degree. The program provides educational experiences to prepare a professional nurse generalist to practice in a variety of health care settings. The program integrates nursing theory, practice, and science with a broad liberal arts education. The program has been developed to prepare a highly competent professional with the education necessary to meet the increasing need for quality health care in society today and provides students with the foundation for graduate study in nursing.

Colorado Mesa's BSN nursing program started in 1988 and has been fully accredited since its inception. The RN-BSN program began originally in 1979 and currently provides all nursing courses in an online format to provide better access to registered nurses.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Integrate knowledge, skills, and attitudes to advance the nursing discipline in a practice-based project. (Specialized knowledge)
2. Analyze data to demonstrate clinical judgement for safe, high-quality nursing practice. (Quantitative fluency)
3. Make and defend assertions about a nursing practice topic in a well-organized evidence-based document or presentation. (Communication fluency)
4. Demonstrate critical thinking behaviors as a basis for practice. (Critical Thinking)
5. Utilize information literacy seeking skills to improve health among diverse populations. (Information Literacy)
6. Demonstrate ethical, personal, and social responsibility when providing high-quality nursing care. (Personal and Social Responsibility)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.

- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 110	Mathematical Investigations-GTMA1	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
PSYC 150	General Psychology-GTSS3	3
PSYC 233	Human Growth and Development-GTSS3	3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences		
Select one Natural Sciences course with a lab [2]		4
Select one Natural Sciences course		3
Total Semester Credit Hours		**31**

[1] Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

[2] BIOL 250 and BIOL 250L strongly recommended.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(15 semester hours)

Code	Title	Semester Credit Hours
BIOL 209	Human Anatomy and Physiology I	3
BIOL 209L	Human Anatomy and Physiology I Laboratory	1
BIOL 210	Human Anatomy and Physiology II	3
BIOL 210L	Human Anatomy and Physiology II Laboratory	1
BIOL 241	Pathophysiology	4
STAT 200	Probability and Statistics-GTMA1	3
Total Semester Credit Hours		**15**

Program Specific Degree Requirements

(31 semester hours, must pass all courses with a grade of "C" or higher and maintain a 2.0 GPA or higher in coursework in this area.)

Prior RN nursing coursework will be awarded up to 38 semester credit hours.

Code	Title	Semester Credit Hours
Core Courses		
NURS 300	Developing the Baccalaureate Role	3
NURS 320	Health Assessment and Promotion for the Nurse	3
NURS 320L	Health Assessment and Promotion for the Nurse Laboratory	1
NURS 408	Health Information Systems	3
NURS 409	Quality Assessment and Improvement in Health Care Settings	3
NURS 410	Population Health Nursing	3
NURS 410L	Population Health Nursing Laboratory	1
NURS 426	Nursing Research and Evidence-Based Practice	3
NURS 430	Leadership for the RN	3
NURS 430L	Leadership for the RN Laboratory	1
NURS 418	Gerontological Nursing and Chronic Illness	3
NURS 432	Capstone Leadership for the RN	4
Total Semester Credit Hours		**31**

General Electives

(9 upper-division semester hours)

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours.

Code	Title	Semester Credit Hours
Select upper-division electives		9
Total Semester Credit Hours		**9**

Suggested Course Plan

In addition to the courses indicated below, accepted prior RN nursing coursework will bring the total hours above the minimum of 120 semester credit hours required for graduation.

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
Essential Learning - Natural Science with Lab [1]		4
PSYC 150	General Psychology-GTSS3	3
KINE 100	Health and Wellness	1
Essential Learning - History		3
	Semester Credit Hours	**14**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
Essential Learning - Natural Science		3
PSYC 233	Human Growth and Development-GTSS3	3
Essential Learning - Humanities		3
KINA Activity		1
	Semester Credit Hours	**13**
Second Year		
Fall Semester		
BIOL 209 & 209L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Laboratory	4
Essential Learning - Fine Arts		3
MATH 110	Mathematical Investigations-GTMA1	3
General Elective		3
	Semester Credit Hours	**13**
Spring Semester		
BIOL 210 & 210L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Laboratory	4
BIOL 241	Pathophysiology	4
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
STAT 200	Probability and Statistics-GTMA1	3
	Semester Credit Hours	**15**
Third Year		
Fall Semester		
NURS 300	Developing the Baccalaureate Role	3
NURS 408	Health Information Systems	3
NURS 320 & 320L	Health Assessment and Promotion for the Nurse and Health Assessment and Promotion for the Nurse Laboratory	4
Upper Division Nursing Elective		3
	Semester Credit Hours	**13**
Spring Semester		
NURS 409	Quality Assessment and Improvement in Health Care Settings	3
NURS 410 & 410L	Population Health Nursing and Population Health Nursing Laboratory	4
NURS 426	Nursing Research and Evidence-Based Practice	3
Upper Division General Elective		3
	Semester Credit Hours	**13**
Fourth Year		
Fall Semester		
NURS 418	Gerontological Nursing and Chronic Illness	3
NURS 430 & 430L	Leadership for the RN and Leadership for the RN Laboratory	4
NURS 432	Capstone Leadership for the RN	4
Upper Division General Elective		3
	Semester Credit Hours	**14**
	Total Semester Credit Hours	**95**

[1] BIOL 250 encouraged

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Nursing (AAS)

Degree: Associate of Applied Science
Major: Nursing
Program Code: 1615

This program, which is offered on the Montrose campus, allows the student to achieve an Associate of Applied Science in Nursing degree,

opening up greater employment opportunities, increased compensation, and more job security. The Associate of Applied Science in Nursing program prepares the student to achieve a balance between general college and nursing education. The Associate of Applied Science in Nursing RN is prepared to be a direct caregiver in hospitals, long-term facilities, and ambulatory care-clinical settings.

Specific Requirements of the Program:

- Science courses will be accepted if they have been taken within the last 10 years.

This program has selective admission requirements. It is the student's responsibility to obtain the current admission requirements.

Important information for this program:

- All essential learning requirements and prerequisite courses must be in progress or completed before applying to the program. Additional admission requirements also apply. Please visit the Department of Health Sciences' website for a complete list of admission requirements and program information.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Exhibit professional nursing care to diverse patients across the life span. (Specialized Knowledge/Applied Learning)
2. Utilize health information systems to provide safe patient care throughout the health care environment. (Specialized Knowledge/Applied Learning)
3. Incorporate therapeutic communication into all interactions. (Communication Fluency)
4. Incorporate evidence based practice in the application of care to provide safe quality outcomes. (Critical Thinking)
5. Utilize principles of leadership and management skills in caring for patients throughout the lifespan. (Specialized Knowledge/Applied Learning)
6. Display accountability utilizing ethical reasoning. Incorporate compassionate and empathetic behaviors while providing care. (Personal and Social Responsibility)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this degree:

- 79 semester hours required for the AAS in Nursing.
- Must have a "C" or better in all courses.

Essential Learning Requirements

(15 Semester hours, must earn a grade of "C" or better in each course for this degree.)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
Communication		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics		
MATH 110	Mathematical Investigations-GTMA1 (or higher)	3
Other Essential Learning Core Courses		
PSYC 233	Human Growth and Development-GTSS3	3
PSYC 150	General Psychology-GTSS3	3
Total Semester Credit Hours		**15**

Other Lower Division Requirements

(2 semester hours, must earn a grade of "C" or better in each course.)

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Total Semester Credit Hours		**2**

Foundation Courses

(12 semester hours, must earn a grade of "C" or better in each course.)

Code	Title	Semester Credit Hours
BIOL 209 & 209L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Laboratory	4
BIOL 210 & 210L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Laboratory	4
BIOL 241	Pathophysiology	4
Total Semester Credit Hours		**12**

Program Specific Degree Requirements

(50 semester hours, must earn a grade of "C" or better in each course.)

Code	Title	Semester Credit Hours
NURS 244	Introduction to Adult Concepts of Health	2
NURS 244L	Introduction to Adult Concepts of Health Laboratory	2
NURS 246	Pharmacological Concepts I	3
NURS 247	Fundamentals of Nursing	3
NURS 247L	Fundamentals of Nursing Laboratory	2
NURS 248	Adult Concepts of Health I	3
NURS 248L	Adult Concepts of Health I Laboratory	3
NURS 249	Pharmacological Concepts II	3
NURS 250	Health Assessment for Nurses	3
NURS 250L	Health Assessment for Nurses Laboratory	1
NURS 251	Adult Concepts of Health II	3
NURS 251L	Adult Concepts of Health II Laboratory	3
NURS 252	Mental Health Concepts in Nursing	2
NURS 252L	Mental Health Concepts in Nursing Laboratory	2
NURS 253	Family Nursing Obstetrics and Pediatrics	4
NURS 253L	Family Nursing Obstetrics and Pediatrics Laboratory	2
NURS 255	Adult Concepts of Health III	3
NURS 255L	Adult Concepts of Health III Laboratory	3
NURS 256	Capstone	1
NURS 256L	Capstone Laboratory	2
Total Semester Credit Hours		**50**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
MATH 110	Mathematical Investigations-GTMA1	3
BIOL 209 & 209L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Laboratory	4
KINE 100	Health and Wellness	1
KINA Activity Course		1
PSYC 150	General Psychology-GTSS3	3
	Semester Credit Hours	**15**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
PSYC 233	Human Growth and Development-GTSS3	3
BIOL 210 & 210L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Laboratory	4
BIOL 241	Pathophysiology	4
	Semester Credit Hours	**14**
Second Year		
Fall Semester		
NURS 244	Introduction to Adult Concepts of Health	2
NURS 244L	Introduction to Adult Concepts of Health Laboratory	2
NURS 246	Pharmacological Concepts I	3
NURS 247	Fundamentals of Nursing	3
NURS 247L	Fundamentals of Nursing Laboratory	2
	Semester Credit Hours	**12**
Spring Semester		
NURS 248	Adult Concepts of Health I	3
NURS 248L	Adult Concepts of Health I Laboratory	3
NURS 250	Health Assessment for Nurses	3
NURS 250L	Health Assessment for Nurses Laboratory	1
NURS 252	Mental Health Concepts in Nursing	2
NURS 252L	Mental Health Concepts in Nursing Laboratory	2
	Semester Credit Hours	**14**
Third Year		
Fall Semester		
NURS 251	Adult Concepts of Health II	3
NURS 251L	Adult Concepts of Health II Laboratory	3
NURS 253	Family Nursing Obstetrics and Pediatrics	4
NURS 253L	Family Nursing Obstetrics and Pediatrics Laboratory	2
	Semester Credit Hours	**12**
Spring Semester		
NURS 249	Pharmacological Concepts II	3
NURS 255	Adult Concepts of Health III	3
NURS 255L	Adult Concepts of Health III Laboratory	3
NURS 256	Capstone	1
NURS 256L	Capstone Laboratory	2
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**79**

Advising and Graduation Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential

in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Practical Nursing (Technical Certificate)

Award: Technical Certificate
Program of Study: Practical Nursing
Program Code: 1612

This program is designed for students interested in becoming a Licensed Practical Nurse as an entry into the nursing career ladder program. Completion of the Practical Nurse Certificate allows students to progress on to the Bachelor of Science in Nursing, LPN to BSN program. The Practical Nursing program prepares the student to be a direct care giver in hospitals, long-term facilities, and ambulatory care-clinic settings.

This program has selective admission requirements. It is the student's responsibility to obtain the current admission requirements.

Important information about this program:

- All Essential Learning requirements and prerequisite courses must be in progress or completed before applying to the program. Additional admission requirements also apply. Please visit the Department of Health Sciences' website for a complete list of admission requirements and program information.
- Science courses will be accepted if they are within the last 10 years.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Promote therapeutic communication across the lifespan. (Communication Fluency)\
2. Recognize changes and respond to interventions while providing a safe environment. (Specialized Knowledge/Applied learning)\
3. Implement the nursing process, by collecting patient data, identifying needs, reporting findings, and providing input into the plan of care. (Specialized knowledge/Applied learning)\
4. Utilize critical thinking and evidence-based practice in the application of the nursing process. (Critical Thinking)\
5. Incorporate assessment data collaboratively to plan/revise patient care based on the nursing process. (Critical Thinking)\ \
6. Utilize data to ensure quality improvement to support evidence-based practice. (Critical Thinking and Quantitative Literacy)\
7. Demonstrate competent nursing practice within a legal and ethical framework, respecting values, culture and expressed needs. (Specialized\ knowledge/Applied learning)\ \

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.

- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this program:

- 58 semester hours for the Technical Certificate in Practical Nursing.

Essential Learning Requirements

(15 Semester Hours, must maintain a 2.0 cumulative GPA or higher for coursework in this area.)

Code	Title	Semester Credit Hours
Communication [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics		
MATH 110	Mathematical Investigations-GTMA1 (or higher)	3
History, Humanities, Social and Behavioral Science, Fine Arts, or Natural Science Courses		
PSYC 233	Human Growth and Development-GTSS3 [2]	3
PSYC 150	General Psychology-GTSS3 [2]	3
Total Semester Credit Hours		**15**

[1] Must receive a grade of "C" or better and must be completed or in the process of completion by March 1 application deadline. "Late start" or "second module" classes beginning after March 1 deadline do not count toward Essential Learning classes.

[2] This course is counted with the Essential Learning courses, but is a prerequisite for the L.P.N. in Nursing program

Foundation Courses

(12 semester hours, must maintain a 2.0 cumulative GPA or higher for coursework in this area.)

Code	Title	Semester Credit Hours
BIOL 209 & 209L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Laboratory	4
BIOL 210 & 210L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Laboratory	4
BIOL 241	Pathophysiology	4

Program Specific Certificate Requirements

(31 Semester Hours, must maintain a 2.0 cumulative GPA or higher for coursework in this area.)

Code	Title	Semester Credit Hours
NURS 101	Pharmacology Calculations	1
NURS 106	Adult Concepts I	3
NURS 106L	Adult Concepts I Laboratory	2
NURS 107	Foundations of Nursing	3
NURS 107L	Foundations of Nursing Laboratory	3
NURS 109	Introduction to Mental Health	2
NURS 109L	Introduction to Mental Health Laboratory	1
NURS 112	Basic Concepts of Pharmacology	3
NURS 117	Obstetrics and Pediatrics	3
NURS 117L	Obstetrics and Pediatrics Laboratory	2
NURS 156	Socialization into Practical Nursing	2
NURS 172	Adult Concepts II	3
NURS 172L	Adult Concepts II Lab	3
Total Semester Credit Hours		**31**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1 [1]	3
BIOL 209	Human Anatomy and Physiology I [2]	3
BIOL 209L	Human Anatomy and Physiology I Laboratory [2]	1
MATH 110	Mathematical Investigations-GTMA1 (or higher)	3
PSYC 150	General Psychology-GTSS3 [3]	3
	Semester Credit Hours	**13**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
BIOL 210	Human Anatomy and Physiology II [2]	3
BIOL 210L	Human Anatomy and Physiology II Laboratory [2]	1
PSYC 233	Human Growth and Development-GTSS3 [3]	3
BIOL 241	Pathophysiology	4
	Semester Credit Hours	**14**
Second Year		
Fall Semester		
NURS 101	Pharmacology Calculations	1
NURS 106	Adult Concepts I	3
NURS 106L	Adult Concepts I Laboratory	2
NURS 107	Foundations of Nursing	3
NURS 107L	Foundations of Nursing Laboratory	3
NURS 112	Basic Concepts of Pharmacology	3
	Semester Credit Hours	**15**
Spring Semester		
NURS 109	Introduction to Mental Health	2
NURS 109L	Introduction to Mental Health Laboratory	1
NURS 117	Obstetrics and Pediatrics	3
NURS 117L	Obstetrics and Pediatrics Laboratory	2
NURS 156	Socialization into Practical Nursing	2
NURS 172	Adult Concepts II	3
NURS 172L	Adult Concepts II Lab	3
	Semester Credit Hours	**16**
	Total Semester Credit Hours	**58**

[1] Students desiring to progress onto the LPN- Bachelor of Science should check with their advisor to develop a full time schedule of Essential Learning and program requirements during this first year.
[2] BIOL 209/BIOL 209L and BIOL 210/BIOL 210L must have been completed within ten years prior to applying to the nursing program.
[3] This course is counted with the Essential Learning courses, but is a prerequisite for the Licensed Practical Nursing program.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Occupational Therapy

Program Description

The Master of Science in Occupational Therapy (MSOT) program prepares students to become qualified occupational therapists. Occupational therapy (OT) is a health care profession that focuses on helping people regain, develop, and master everyday skills to live independent, productive, and satisfying lives. Occupational therapists promote health and functioning through the therapeutic use of meaningful activities.

The MSOT program consists of four didactic semesters and two 12-week clinical fieldwork rotations. The didactic portion follows a cohort model where students enter the program together and progress as a group. Students complete their fieldwork rotations at a variety of clinical and community-based settings. The MSOT program was designed to meet all accreditation requirements set by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA). In August of 2023, ACOTE granted the MSOT program a seven-year accreditation.

The National Board for Certification in Occupational Therapy (NBCOT) is the credentialing agency responsible for certifying occupational therapy practitioners in the United States. The NBCOT's certification process ensures that occupational therapists have the knowledge and skills necessary to practice safely and effectively. Graduates of the MSOT program will be eligible to take the NBCOT exam. Successful completion of the exam and state licensure are required to become an occupational therapist. The OTR/L credential indicates an occupational therapist is registered with the NBCOT and licensed to practice in their state.

For a complete list of program requirements, please visit the Occupational Therapy Program website.

Admission Requirements

A cumulative minimum grade point average (GPA) of 3.0 in undergraduate coursework and prerequisite coursework from an accredited university. Evidence of completion of a bachelor's degree and all prerequisite courses must be received prior to the start of the program. Contact the MSOT program or the Occupational Therapist Centralized Application Service (OTCAS) for the complete list of admission requirements.

For a complete list of program requirements, please visit the Occupational Therapy Program website.

Contact Information

Occupational Therapy Program
113 St. Mary's Medical Education Center
970.248.1484

Accreditation

The profession's accrediting body, the Accreditation Council for Occupational Therapy (ACOTE), has granted accreditation for seven years to this program (2023-2029). Graduates of the program will be eligible to sit for the national certification examination for occupational therapists through the National Board for Certification in Occupational Therapy (NBCOT) and will be able to apply for licensure through the professional licensure board in the state in which the graduate wishes to practice.

ACOTE can be contacted at:

Accreditation Council for Occupational Therapy Education (ACOTE®)
6166 Executive Blvd., Suite 200
North Bethesda, MD 20852-4929
301.652.6611
accred@aota.edu

Programs of Study
Graduate

- Occupational Therapy (MS) (p. 683)

Occupational Therapy (MS)

Degree: Master of Science
Major: Occupational Therapy
Program Code: 8158

The MS Occupational Therapy program prepares students with a baccalaureate degree to become qualified occupational therapists. The didactic portion of this program includes four semesters of on-campus coursework followed by two semesters of experiential and hybrid coursework. The program requires successful completion of academic courses and integrated fieldwork concluding with two, 12-week offsite fieldwork experiences.

Admission Requirements:

- Applicants must have achieved a minimum 3.0 cumulative grade point average overall or
- A minimum of 3.0 cumulative GPA of the last 60 credits may be considered for a holistic approach.
- If under a minimum of 2.7 GPA, there may be special consideration for a holistic approach.

Evidence of completion of the Bachelor's degree and all prerequisites must be received prior to the start of the program. Please check with the CMU Occupational Therapy Program Director or the Occupational Therapist Centralized Application Service (OTCAS) for the complete list of additional admission requirements.

All CMU masters-level graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, information literacy, and ethical reasoning. In addition to these campus-wide student learning outcomes, a graduate of this program will be able to:

1. Critically apply the latest research and knowledge bases that support occupational therapy practice and contribute to the growth and dissemination of research and knowledge. (Critical Thinking, Information Literacy)
2. Articulate and apply therapeutic use of occupations with individuals or groups for the purpose of participation in roles and situations in home, school, workplace, community, and other settings. (Communication Fluency, Critical Thinking)
3. Develop and implement client-centered care that is inclusive of cultural values, beliefs and needs. (Specialized Knowledge)
4. Articulate and apply occupational therapy theory and evidence-based evaluations and interventions to achieve expected outcomes as related to occupation. (Specialized Knowledge, Communication Skills)
5. Plan and apply evidence-based occupational therapy interventions to address the physical, cognitive, functional cognitive, psychosocial, sensory, and other aspects of performance in a variety of contexts and environments to support engagement in everyday life activities that affect health, well-being, and quality of life, as informed by the Occupational Therapy Practice Framework (OTPF). (Critical Thinking, Specialized Knowledge)
6. Employ therapeutic use of self and science driven evidence in all practice areas and settings inclusive of: a direct care provider, consultant, educator, manager, researcher, and advocate for the profession and the consumer. (Specialized Knowledge, Quantitative Fluency)

Accreditation

The profession's accrediting body, the Accreditation Council for Occupational Therapy (ACOTE), has granted accreditation for seven years to this program (2023-2029). Graduates of the program will be eligible to sit for the national certification examination for occupational therapists through the National Board for Certification in Occupational Therapy (NBCOT) and will be able to apply for licensure through the professional licensure board in the state in which the graduate wishes to practice.

ACOTE can be contacted at:

Accreditation Council for Occupational Therapy Education (ACOTE®)
6166 Executive Blvd., Suite 200
North Bethesda, MD 20852-4929
Ph: 301.652.6611
Email: accred@aota.edu

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional requirements apply to all CMU graduate-level degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Graduate certificates consist of a minimum of 5 credit hours. Master's degrees consist of a minimum of 30 credit hours. Doctoral degrees consist of a minimum of 60 credit hours.
- All credits in a graduate program must be minimally at the 500-level.
- At least fifty percent of the credit hours must be taken at CMU.
- Students must achieve a 3.00 cumulative GPA or higher in all CMU coursework.
- Students may not apply coursework with a grade lower than a "B" toward graduation requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.

- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Graduate Degree Requirements (p. 87)" in this catalog for a complete list of graduation requirements.
- All policies for graduate degrees are outlined in the Graduate Policies and Procedures Manual, Capstone Guidelines Manual, and Thesis and Dissertation Guidelines Manual, all of which are provided on the Graduate Studies website.

Specific to this degree:

- 76 semester hours required for the Master of Science in Occupational Therapy

Program Specific Requirements

(76 semester hours)

Code	Title	Semester Credit Hours
OCCU 510	Scholarship and Research	2
OCCU 511	Lifespan and Occupational Performance	2
OCCU 512	Professional Skills and Occupation-Based Practice I	2
OCCU 513	Functional Anatomy and Movement	4
OCCU 514	Wellness and Occupational Performance	2
OCCU 515	Occupation-Based Practice and Theory for Older Adults	4
OCCU 516	History and Theoretical Foundations of Occupational Therapy	2
OCCU 520	Brain, Behavior and Occupation	3
OCCU 522	Professional Skills and Occupation-Based Practice II	2
OCCU 523	Occupation-Based Practice and Theory for Adults	4
OCCU 530	Scholarship and Evidence-Based Practice I	2
OCCU 531	Occupation-Based Practice and Theory for Children and Adolescents	4
OCCU 532	Assistive Technology and Occupation	3
OCCU 533	Telehealth, Occupation and Modalities	3
OCCU 534	Occupational Therapy and Mental Health Practice	3
OCCU 540	Scholarship and Evidence-Based Practice II	2
OCCU 541	Leadership and Ethics in Occupational Therapy	2
OCCU 542	Occupation-Based Practice and Theory for Populations	4
OCCU 543	Professional Development Preparation	2
OCCU 550	Fieldwork Level IA and Seminar	1
OCCU 551	Fieldwork Level IB and Seminar	1
OCCU 552	Fieldwork Level IC and Seminar	1
OCCU 553	Fieldwork Level ID and Seminar with Inter-Professional Education	1
OCCU 554	Fieldwork Level IIA	9
OCCU 555	Fieldwork Level IIB	9
OCCU 594	Fieldwork Seminar	1
OCCU 593	Occupational Therapy Culminating Experience	1
Total Semester Credit Hours		**76**

Suggested Course Plan

First Year		
Spring Semester		**Semester Credit Hours**
OCCU 511	Lifespan and Occupational Performance	2
OCCU 512	Professional Skills and Occupation-Based Practice I	2
OCCU 513	Functional Anatomy and Movement	4
OCCU 514	Wellness and Occupational Performance	2
OCCU 515	Occupation-Based Practice and Theory for Older Adults	4
OCCU 516	History and Theoretical Foundations of Occupational Therapy	2
OCCU 550	Fieldwork Level IA and Seminar	1
	Semester Credit Hours	**17**
Summer Semester		
OCCU 510	Scholarship and Research	2
OCCU 520	Brain, Behavior and Occupation	3
OCCU 522	Professional Skills and Occupation-Based Practice II	2
OCCU 523	Occupation-Based Practice and Theory for Adults	4
OCCU 551	Fieldwork Level IB and Seminar	1
	Semester Credit Hours	**12**
Fall Semester		
OCCU 530	Scholarship and Evidence-Based Practice I	2
OCCU 531	Occupation-Based Practice and Theory for Children and Adolescents	4
OCCU 532	Assistive Technology and Occupation	3
OCCU 533	Telehealth, Occupation and Modalities	3
OCCU 534	Occupational Therapy and Mental Health Practice	3
OCCU 552	Fieldwork Level IC and Seminar	1
	Semester Credit Hours	**16**
Second Year		
Spring Semester		
OCCU 540	Scholarship and Evidence-Based Practice II	2
OCCU 541	Leadership and Ethics in Occupational Therapy	2
OCCU 542	Occupation-Based Practice and Theory for Populations	4
OCCU 543	Professional Development Preparation	2
OCCU 553	Fieldwork Level ID and Seminar with Inter-Professional Education	1
OCCU 593	Occupational Therapy Culminating Experience	1
	Semester Credit Hours	**12**
Summer Semester		
OCCU 554	Fieldwork Level IIA	9
	Semester Credit Hours	**9**
Fall Semester		
OCCU 555	Fieldwork Level IIB	9
OCCU 594	Fieldwork Seminar	1
	Semester Credit Hours	**10**
	Total Semester Credit Hours	**76**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses

and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Outdoor Recreation Industry Studies

Program Description

The Outdoor Recreation Industry Studies program prepares students to enter the world of outdoor industry business management, product manufacturing, sales and marketing, adventure and guide services, outdoor education, public lands management, conservation advocacy, and adventure leadership. The Outdoor Recreation Industry Studies program recognizes the multifaceted nature of the outdoor industry, combining a wide range of coursework in outdoor leadership, business management, innovation and entrepreneurship, adventure planning, hospitality, risk management, stewardship, and technical outdoor skills.

Through study and experience, students completing the baccalaureate degree in Outdoor Recreation Industry Studies will be prepared to work in one of the largest growing segments of the economy. The outdoor recreation industry generates $1.2 trillion in economic output annually (2.3% of GDP), comprises 3.1% of U.S. employees, and accounts for 5 million jobs in the United States. This industry is a powerhouse economic driver that demands a highly skilled workforce. Students will gain qualifications for careers in outdoor industry business and manufacturing, resort and ski area management, professional guiding, public lands management, outdoor education, event planning, conservation, and adventure filmmaking.

Contact Information

Outdoor Recreation Industry Studies
Sarah Shrader, Program Director
Maverick Center (MC) 236
970.248.2159

Programs of Study Bachelors/Minors

- Outdoor Recreation Industry Studies (BS) (p. 685)
- Outdoor Recreation Studies (Minor) (p. 688)

Outdoor Recreation Industry Studies (BS)

Degree: Bachelor of Science
Major: Outdoor Recreation Industry Studies
Program Code: 3151

The Outdoor Recreation Industry Studies degree program prepares students to enter the world of outdoor industry business management, sales, and marketing, adventure services, guide services, adventure programming, expedition planning and adventure leadership. The Outdoor Recreation Industry Studies degree program recognizes the multifaceted nature of the outdoor industry, combining a wide range of coursework in outdoor leadership, business management, innovation and entrepreneurship, adventure planning, tourism, risk management, stewardship and sustainability.

Through study and experience, students completing the degree in Outdoor Recreation Industry Studies will be prepared to work in one of the largest growing segments of the economy: the outdoor recreation industry. At more than 2% of the GDP and over $880B in consumer spending per year, the outdoor recreation industry is a powerhouse economic driver that demands a highly skilled workforce. Students will

gain qualifications for jobs in such fields as outdoor industry business- including retail and manufacturing- resort and ski area management, state and national park service, outdoor education, camp administration, and professional guiding.

For more information on what you can do with this major, visit Career Service's What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Critically evaluate historical, socio-economical, and philosophical aspects of the outdoor recreation industry. (Critical Thinking)
2. Apply fundamental concepts of management, administration, marketing, finance, and economics to the outdoor recreation industry. (Applied Learning)
3. Apply technical skills of survival, risk management, and leadership in outdoor settings. (Applied Learning)
4. Construct codes of personal ethics and apply codes of professional and environmental ethics within the outdoor recreation industry profession. (Personal and Social Responsibility)
5. Explain and navigate the relationships between the outdoor recreation industry and state/federal legislation, public lands and water, climate science, wildlife corridors, and regulatory agencies. (Critical Thinking, Information Literacy)
6. Articulate the implications of economic development, education and workforce, public health and wellness, and conservation and stewardship within the outdoor recreation industry. (Specialized Knowledge, Quantitative Fluency)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Specific to this degree:

- Wilderness First Responder course certificate

Essential Learning Requirements

(31 semester hours)
See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 113	College Algebra-GTMA1 (or higher) [2]	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences		
Select one Natural Science course [3]		3
Select one Natural Science course with a lab [4]		4
Total Semester Credit Hours		**31**

[1] Must receive a grade of “C” or better and must be completed by the time the student has 60 semester hours.
[2] This a 4 semester credit hour course. 3 credits apply to Essential Learning requirements and 1 credit applies as an elective credit.

[3] ENVS 101 suggested as it is a pre-req for ENVS 304.
[4] One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirements		
KINE 100	Health and Wellness	1
OREC 104	Orienteering	1
OREC 105	Backpacking	1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**7**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 credit hours.

Foundation Courses Requirements

(22 semester hours)

Code	Title	Semester Credit Hours
OREC 100	Leave No Trace	1
OREC 112	Rock Climbing II	1
OREC 135	Backcountry Winter Travel	1
Choose one of the following courses:		1
OREC 108	Stand Up Paddle Boarding	
OREC 109	Kayaking	
OREC 110	River Rafting	
BUGB 211	Business Communications	3
MANG 201	Principles of Management	3
MARK 231	Principles of Marketing	3
KINE 200	Foundations of Kinesiology	3
OREC 205	Foundations of Outdoor Recreation Industry Studies	3
Choose one of the following courses:		3
STAT 200	Probability and Statistics-GTMA1	
STAT 241	Introduction to Business Analysis	
CISB 241	Introduction to Business Analysis	
Total Semester Credit Hours		**22**

Program Specific Requirements

(48 semester hours)

Code	Title	Semester Credit Hours
ENTR 300	Small Business and Entrepreneurship	3
ENVS 304	Environmental Science for Outdoor Recreation	3
OREC 305	Outdoor Industry Business	3
OREC 335	Public Lands Management	3
KINE 342	Sport Law and Recreation Risk Management	3
OREC 350	Nature-Based Interventions for Individual and Community Health	3
OREC 400	Outdoor Industry Project Management	3
ENTR 401	Entrepreneurial Finance	3
OREC 405	Outdoor Recreation Leadership, Programming, Education, and Assessment	3
KINE 480	Inclusive Physical Activity	3
POLS 488	Environmental Politics and Policy	3
Restricted Electives (choose three):		9
OREC 311	Avalanche Rescue Techniques and Theory	
OREC 312	Swiftwater Rescue Techniques and Theory	
OREC 313	Rock Climbing Instructor and Rope Rescue	
OREC 315	Professional Outdoor Guide	
OREC 499	Internship	6
Total Semester Credit Hours		**48**

General Electives Requirements

All college-level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours. 12 semester hours needed to meet graduation requirements.

Code	Title	Semester Credit Hours
MATH 113	College Algebra-GTMA1	1
Select electives		11
Total Semester Credit Hours		**12**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
KINE 200	Foundations of Kinesiology	3
KINE 100	Health and Wellness	1
MATH 113	College Algebra-GTMA1	4
OREC 100	Leave No Trace	1
Essential Learning - Natural Science [1]		3
	Semester Credit Hours	**15**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
OREC 104	Orienteering	1
OREC 105	Backpacking	1
OREC 205	Foundations of Outdoor Recreation Industry Studies	3
Essential Learning - Social and Behavior Science		3
Essential Learning - Natural Science with Lab		4
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
OREC 112	Rock Climbing II	1
Choose one of the following:		1
OREC 108	Stand Up Paddle Boarding	
OREC 109	Kayaking	
OREC 110	River Rafting	
Essential Learning - History		3

Essential Learning - Social and Behavior Science		3
Essential Learning- Humanities		3
General Elective		3
	Semester Credit Hours	**14**
Spring Semester		
OREC 135	Backcountry Winter Travel	1
MANG 201	Principles of Management	3
BUGB 211	Business Communications	3
ENVS 304	Environmental Science for Outdoor Recreation	3
Restricted Elective		3
Essential Learning - Fine Arts		3
	Semester Credit Hours	**16**
Third Year		
Fall Semester		
ESSL 200	Essential Speech	1
ESSL 290	Maverick Milestone	3
MARK 231	Principles of Marketing	3
ENTR 300	Small Business and Entrepreneurship	3
OREC 350	Nature-Based Interventions for Individual and Community Health	3
Restricted Elective		3
	Semester Credit Hours	**16**
Spring Semester		
OREC 305	Outdoor Industry Business	3
OREC 335	Public Lands Management	3
Choose one of the following:		3
STAT 200	Probability and Statistics-GTMA1	
STAT 241	Introduction to Business Analysis	
CISB 241	Introduction to Business Analysis	
General Electives		5
	Semester Credit Hours	**14**
Fourth Year		
Fall Semester		
KINE 342	Sport Law and Recreation Risk Management	3
ENTR 401	Entrepreneurial Finance	3
KINE 480	Inclusive Physical Activity	3
Restricted Elective		3
General Elective		3
	Semester Credit Hours	**15**
Spring Semester		
OREC 400	Outdoor Industry Project Management	3
OREC 405	Outdoor Recreation Leadership, Programming, Education, and Assessment	3
POLS 488	Environmental Politics and Policy	3
OREC 499	Internship	6
	Semester Credit Hours	**15**
	Total Semester Credit Hours	**120**

[1] ENVS 101 suggested as it is a pre-req for ENVS 304.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Outdoor Recreation Studies (Minor)

Minor: Outdoor Recreation Studies
Program Code: M111

The minor in Outdoor Recreation Studies is designed to equip students with the basic knowledge and skills needed to grow as a professional in the outdoor recreation industry. Students will learn how outdoor recreation impacts economies, communities, tourism and the environment. All of the course work is rooted in leadership. The minor will encourage every student to pursue their own outdoor passion.

Note: Additional fees are required throughout the Outdoor Recreation Studies minor for equipment and gear during field days.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(23 hours required)

Code	Title	Semester Credit Hours
Required Courses:		
OREC 100	Leave No Trace	1
OREC 104	Orienteering	1
OREC 105	Backpacking	1
OREC 205	Foundations of Outdoor Recreation Industry Studies	3
OREC 405	Outdoor Recreation Leadership, Programming, Education, and Assessment	3
Choose a total of 2 hours from the following list:		*2*
OREC 108	Stand Up Paddle Boarding	
OREC 109	Kayaking	
OREC 110	River Rafting	
OREC 112	Rock Climbing II	
OREC 135	Backcountry Winter Travel	
Choose a total of 12 hours from the following list:		*12*
OREC 305	Outdoor Industry Business	
OREC 311	Avalanche Rescue Techniques and Theory	
OREC 312	Swiftwater Rescue Techniques and Theory	
OREC 313	Rock Climbing Instructor and Rope Rescue	
OREC 315	Professional Outdoor Guide	
OREC 335	Public Lands Management	
OREC 350	Nature-Based Interventions for Individual and Community Health	
OREC 400	Outdoor Industry Project Management	
Total Credit Hours		*23*

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the "Intent to Graduate" form.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Peace Officer Standards and Training (POST)

Program Description

This police academy certificate program exceeds the Colorado Peace Officers Standards and Training (POST) requirements for peace officer entry level training. The individual training requirements for arrest control, law enforcement driving, and firearms are included in the program. Successful completion of all academic and skills training are required to take the CO POST Certification Exam. Students enrolled in the program will earn 31 credit hours that may be applied towards an associate's or Bachelor of Applied Science degree at Colorado Mesa University. This is a physically and academically rigorous 16-week program that requires full time participation and one hundred percent attendance during the weeks of enrollment. Instruction runs Monday through Friday with some Saturdays and Sundays and are typically 10–12-hour days. Some evening instruction is required.

Special Requirements

The program is not an open enrollment and requires a separate application to the academy. The application process for the Western Colorado Peace Officers Academy (WCPOA) is competitive and students are selected to attend by the academy director. Students applying to the POST program must undergo comprehensive screening and evaluation that includes (but is not limited to) interviews, reference check, background check, submission of fingerprints to the Colorado Bureau of Investigation, as well as drug, personality, medical, and physical fitness testing. Additionally, criteria such as drug use (including marijuana), criminal record, driving, employment, military service and academic history are all reviewed. Agency sponsored students have priority seating. Second priority seating is reserved for CMU students completing a degree in Criminal Justice that the WCPOA is part of the required course work (application is still required).

Integrity: Integrity is a fundamental necessity for a career in law enforcement. All application materials require truthful disclosure and accuracy. Falsification and/or omission of fact or information made by an applicant may be sufficient grounds for rejection to the WCPOA. If discovered after admission, a cadet is subject to immediate dismissal from the WCPOA, and sponsoring agency.

Applications: Applications shall be complete, legible (typed), and accurate to be considered for attendance at the WCPOA. Applications not in compliance with the standard are subject to removal from consideration. Late applications will not be considered for enrollment into the WCPOA. Applications must be received within the following dates:

- Fall Semester Academy Session - January 1st to the last Friday in March (by close of business/5pm).
- Spring Semester Academy Session – July 1st to the last Friday in September (by close of business/5pm).

Citizenship: The Colorado Department of Law (DOL), the Peace Officer Standards and Training (POST) Board, Colorado Mesa University, and the WCPOA are committed to following all federal and state laws governing the certification of peace officer applicants, for both U.S. citizens and non-citizens alike. Due to the changing nature of immigration law and certification requirements, the most current information can be found on the Colorado POST website.

Age: Agency sponsored cadets shall be subject to hiring qualifications of their sponsoring agency. Non-sponsored applicants must be at least twenty-one (21) years of age by the start date of the academy session desired.

Education: A minimum of a high school diploma or equivalent is required by P.O.S.T. standards and by the WCPOA. Any CMU or CMU Tech academic suspensions must be resolved prior to application to the WCPOA.

Fitness: Agency sponsored cadets shall be subject to hiring qualifications of their sponsoring agency. The fitness standard used by the WCPOA is the Cooper Fitness Assessment and includes a 1.5-mile run, maximum men's military style push-ups in one-minute, maximum sit-ups in one-minute, and a 300-meter sprint. These events are completed in order with no resting in between. A competitive score for applicants to the WCPOA is an overall 50th percentile ranking. Scoring of the test results is based on age and gender. 50th percentile requirements are as follows:

- Women 20-29: 1.5-mile run (14:15), push-ups (18), sit-ups (35), 300m sprint (1:04).
- Women 30-39: 1.5-mile run (15:14), push-ups (14), sit-ups (27), 300m sprint (1:14).
- Women 40-49: 1.5-mile run (16:13), push-ups (11), sit-ups (22), 300m sprint (1:26).
- Men 20-29: 1.5-mile run (11:58), push-ups (33), sit-ups (40), 300m sprint (0:56).
- Men 30-39: 1.5-mile run (12:25), push-ups (27), sit-ups (36), 300m sprint (0:57).
- Men 40-49: 1.5-mile run (13:05), push-ups (21), sit-ups (31), 300m sprint (1:07).

Drug History: Agency sponsored cadets shall be subject to hiring qualifications of their sponsoring agency. Non-sponsored applicants will be disqualified from attending the WCPOA if they meet **ANY** of the following criteria:

- Any use of Heroin, Hallucinogens, PCP, Angel Dust, Wet, Phencyclidine, or LSD.
- Marijuana: Use of any kind, including edibles, containing the psychoactive substance tetrahydrocannabinol (THC) within two (2) years prior to the application deadline.
- Dangerous Drugs/Narcotics/Vaporous Substances:
  - Use of any kind, within five (5) years prior to the application deadline.
  - Any use may not exceed five (5) times in a lifetime, with no more than one (1) time since the age of 21.
- Any demonstrated pattern of illegally abusing prescription medication.
- Any use of any illegal drug(s) while employed in a criminal justice or law enforcement capacity.
- Any manufacture or cultivation of any illegal drug(s) for the purpose of sales/marketing.
- Any sale or facilitating the sale of any illegal drugs.

Criminal History: Agency sponsored cadets shall be subject to hiring qualifications of their sponsoring agency. All non-sponsored applicants shall be subject to an NCIC/CCIC criminal records check. Non-sponsored

applicants will be disqualified from attending the WCPOA if they meet **ANY** of the following criteria:

- A felony conviction or pending felony charge.
- A domestic violence related conviction or pending domestic violence related charge.
- A misdemeanor conviction or pending misdemeanor charge that affects a candidate's ability to lawfully possess firearms.
- A misdemeanor conviction or pending misdemeanor charge which may affect Colorado P.O.S.T. certification, as outlined on the Colorado POST website under Disqualifying Incidents.
- A conviction, pending charge, or commission of any other offense, which would undermine their credibility as a Peace Officer.
- Two (2) or more misdemeanor convictions in the past five (5) years prior to the application deadline.
- A misdemeanor conviction or pending misdemeanor charge while serving in a public safety position.

Driving History: P.O.S.T. and WCPOA standards require that all applicants possess a current and valid sate issued driver's license. All non-sponsored applicants shall be subject to a check of their driving history through their respective in state and out of state driver licensing and record keeping authority. Colorado residents shall submit a copy of their driving history that can be requested from the Colorado Division of Motor Vehicles website. All non-sponsored applicants who have not lived in Colorado for all of the last three (3) years shall submit a copy of their driving history from each state in which they have previously resided. Agency sponsored cadets shall be subject to hiring qualifications of their sponsoring agency. Non-sponsored applicants will be disqualified from attending the WCPOA if they meet **ANY** of the following criteria:

- Recent demonstrated pattern of excessive traffic violations.
- Conviction (or pending charge) for operating a motor vehicle without insurance within one (1) year prior to the application deadline.
- A driver's license suspension based on moving traffic violations/ infractions within the past three (3) years prior to the application deadline.
- A DUI or DWAI conviction (or pending charge) within the past three (3) years prior to the application deadline (this includes all like offenses applicable to any means of motorized transport, such as boating under the influence).
- More than one (1) DUI or DWAI in your lifetime (this includes all like offenses applicable to any means of motorized transport, such as boating under the influence).
- Conviction (or pending charge) for major traffic violations/infractions within the past five (5) years prior to the application deadline. Major traffic violations or infractions, include:
  - Leaving the scene of an accident.
  - Eluding or attempting to elude a peace officer.
  - Engaging in a speed contest.
  - Reckless driving.
  - Driving infraction or offense that states the violation resulted in serious bodily injury or death.

Military History: P.O.S.T. and WCPOA standards require that all military veterans submit a copy of their DD Form 214 and that their documented "Character of Service" be listed as any other discharge than under dishonorable conditions, per § 24-31-301(5), C.R.S. Discharge from any US military branch of service categorized as less than honorable or for reason of unsuitability or misconduct will be evaluated on a case-by-case basis.

See the academy director for details.

Contact Information

CMU Tech
Office of Student Services, Kayenta Hall 102
2508 Blichmann Avenue
970.255.2670

Programs of Study Certificates

- Peace Officer Academy - Peace Officer Standards and Training (POST) (Technical Certificate) (p. 691)

Peace Officer Academy - Peace Officer Standards and Training (POST) (Technical Certificate)

Award: Technical Certificate
Program of Study: Peace Officer Academy - POST Certification
Program Code: 1361

The Peace Officer Academy certificate program exceeds the Colorado Peace Officers Standards Training (P.O.S.T.) requirements for peace officer entry level training. The individual training requirements for Arrest Control, Law Enforcement Driving, and Firearms are included in the program. Students enrolled in the program will earn 31 credit hours that may be applied toward Associate or Bachelor's degrees at Colorado Mesa University.

This is an intensive 16 week course that requires full time participation during the weeks of enrollment, including some weekends. Many course days are 12 hours long: Mandatory Physical Fitness training occurs throughout the semester. The Grand Junction-based WCPOA (Western Colorado Peace Officers Academy) is sponsored by the Grand Junction Police Department, Mesa County Sheriff's Office and 21st Judicial District Attorney's Office. The Montrose-based WCLEA (Western Colorado Law Enforcement Academy) is sponsored by Montrose PD, Montrose County Sheriff's Office, and 7th Judicial District Attorney's Office. The program is not an open enrollment program and requires a separate application to the Academy. Please contact the Academy Directors or visit our web pages for details.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Criminal Process: Explain the functions of the criminal justice system in protecting the constitutional rights of all individuals within the United States, regardless of citizenship. (Specialized Knowledge)
2. Basic Law: Explain the current rules for peace officer conduct as it pertains to arrest, search and seizure. (Specialized Knowledge, Information Literacy)

3. Victim's Right: Explain the laws relating to victim rights and community resources available for crime victim's services. (Specialized Knowledge, Information Literacy)
4. Community Policing: Identify and recognize community policing and the necessary elements for implementation of community policing practice and philosophy and recognize community partnerships as an integral component in community policing and problem solving. (Critical Thinking)
5. Professional Behavior: Identify the traits that officers should exemplify and explain the benefits of professional and ethical behavior to the officer, department, and community. (Personal and Social Responsibility)
6. Patrol Observation and Perception: Analyze and interpret information gathered during patrol operations, differentiate between proactive and reactive patrol, and demonstrate different patrol methods. (Critical Thinking)
7. Traffic Code: Recognize elements of traffic code violations as defined in Title 42 C.R.S. (Specialized Knowledge)
8. Preliminary Investigations: Identify and explain procedures for responding to a crime scene, conducting an initial crime scene investigation, interviewing victims, witnesses, and suspects, and conducting a follow up investigation. (Communication Fluency, Critical Thinking, Specialized Knowledge)
9. Report Writing: Apply the basic requirements of written communication in law enforcement. (Communication Fluency)
10. Wellness: Explain why wellness is an integral component of the law enforcement profession, and the necessity of being in good physical condition. (Personal and Social Responsibility)
11. Tactical Casualty Care: Apply lifesaving medical actions in the context of a hazardous situation such as an active shooter, specific medical interventions, and skills. (Specialized Knowledge, Quantitative Literacy)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(31 semester hours)

Code	Title	Semester Credit Hours
CRJW 101	Basic Police Academy I	4
CRJW 102	Basic Police Academy II	5
CRJW 103	Basic Police Academy III	7
CRJW 104	Basic Police Academy IV	6
CRJW 106	Arrest Control	3
CRJW 107	Law Enforcement Driving	2
CRJW 108	Firearms	3
KINA 127	Physical Conditioning	1
Total Semester Credit Hours		**31**

Suggested Course Plan

First Year Fall Semester		Semester Credit Hours
CRJW 101	Basic Police Academy I	4
CRJW 102	Basic Police Academy II	5
CRJW 103	Basic Police Academy III	7
CRJW 104	Basic Police Academy IV	6
CRJW 106	Arrest Control	3
CRJW 107	Law Enforcement Driving	2
CRJW 108	Firearms	3
KINA 127	Physical Conditioning	1
	Semester Credit Hours	**31**
	Total Semester Credit Hours	**31**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around.

Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Pharmacy Technician

Overview

Program Description

The Pharmacy Technician Program is designed to cover both the academic and clinical skills necessary to perform as a pharmacy technician. The program begins fall semester of each year. The Certificate in Pharmacy Technician Program is designed to be completed in one year. For the Associate of Applied Science in Pharmacy Technician Degree, prerequisite courses, including Essential Learning courses, are completed in year two of the program. The application process occurs in the second semester of the first year. Once accepted to the program, the second year prepares students to work as advanced pharmacy technicians and assist in pharmacy operations.

Pharmacy Technicians who pass the certifying examination offered by the PTCB (Pharmacy Technician Certification Board) are certified and authorized to use the initials CPhT to designate their status as Nationally Certified Pharmacy Technicians, which further allows them to apply for licensure in their individual states.

Contact Information

CMU Tech
Office of Student Services, Kayenta Hall 102
2508 Blichmann Avenue
970.255.2670

Programs of Study

Associates

- Pharmacy Technician (AAS) (p. 693)

Certificates

- Entry-Level Pharmacy Technician (Technical Certificate) (p. 695)

Pharmacy Technician (AAS)

Overview

Degree: Associate of Applied Science
Major: Pharmacy Technician
Program Code: 1399

The Pharmacy Technician Program is designed to cover both the academic and clinical skills necessary to perform as a pharmacy technician. The program begins fall semester of each year. The Certificate in Pharmacy Technician Program is designed to be completed in one year. For the Associate of Applied Science in Pharmacy Technician Degree, prerequisite courses, including Essential Learning courses, are completed in year two of the program. The application process occurs in the second semester of the first year. Once accepted to the program, the second year prepares students to work as advanced pharmacy technicians and assist in pharmacy operations.

A pharmacy technician is someone who works beside licensed pharmacists to process prescriptions, dispense medication, perform pharmacy-related functions, and provide information to customers. One of the most challenging aspects of being a pharmacy technician is maintaining knowledge on changes that occur within the field, since

pharmacy practice changes on a weekly basis with new generics and new drugs.

Job duties include dispensing prescription drugs and other medical devices to patients, instructing on their use, performing administrative duties in pharmaceutical practice, and reviewing prescription requests with doctor's offices and insurance companies to ensure correct medications are provided and payment is received. Pharmacy technicians may be employed in retail settings, hospitals, mail-order pharmacies, long-term care pharmacies, specialty compounding pharmacies, nuclear pharmacies, oncology clinics, and insurance companies.

Pharmacy Technicians who take and pass the certifying examination offered by the PTCB (Pharmacy Technician Certification Board) are certified and authorized to use the initials CPhT to designate their status as Nationally Certified Pharmacy Technicians, which further allows them to apply for licensure in their individual states.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Demonstrate familiarity with brand and generic drug names, appearance, manufacturer, dosage forms(s), and route of administration for at least the top 200 drugs.\ (Information Literacy)\
2. Demonstrate the ability to process a medication order completely, accurately, and efficiently (interpretation, drug product selection, computer warnings, packaging, and labeling, filling a prescription in an outpatient setting, and preparing IV medication using aseptic technique), while working under the supervision of a licensed pharmacist.\ (Specialized Knowledge and Applied Learning)\
3. Perform accurate pharmacy calculations and proficiently apply computer skills, record keeping and billing in adherence to applicable industry regulations. (Quantitative Fluency)
4. Uphold legal and ethical standards and adhere to principles of patient confidentiality within the health care and community environment as defined by HIPAA. (Personal and Social Responsibility)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(17 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English		
ENGL 111	English Composition I-GTCO1	3
SPCH 101	Interpersonal Communication	3
Mathematics		
MATH 113	College Algebra-GTMA1 (or higher)	4
Other Essential Learning Core Courses		
BIOL 105 & 105L	Attributes of Living Systems-GTSC1 and Attributes of Living Systems Laboratory-GTSC1	4
PSYC 150	General Psychology-GTSS3	3
Total Semester Credit Hours		**17**

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirements		
KINE 100	Health and Wellness	1

Select one Activity course	1
Total Semester Credit Hours	**2**

Program Specific Degree Requirements

(41 semester hours, must earn a grade of "C" or better in each course.)

Code	Title	Semester Credit Hours
PHTE 111	Introduction to Pharmacy	3
PHTE 112	Pharmacy Law and Ethics	2
PHTE 114	Computer Skills for Pharmacy Technicians	1
PHTE 115	Pharmacology I	3
PHTE 116	Institutional Pharmacy	3
PHTE 118	Pharmacology II	3
PHTE 119	Community Pharmacy	3
PHTE 170	Pharmacy Clinical I	3
PHTE 171	Pharmacy Clinical II	2
PHTE 189	Review for PTCB National Exam	1
PHTE 235	Calculations and Compounding Techniques	4
PHTE 250	Sterile Compounding and Aseptic Technique	2
PHTE 255	Advanced Practice and Nontraditional Roles	2
BIOL 209 & 209L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Laboratory	4
CHEM 131 & 131L	General Chemistry I-GTSC1 and General Chemistry Laboratory I-GTSC1	5
Total Semester Credit Hours		**41**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
PHTE 111	Introduction to Pharmacy	3
PHTE 114	Computer Skills for Pharmacy Technicians	1
PHTE 115	Pharmacology I	3
PHTE 116	Institutional Pharmacy	3
PHTE 235	Calculations and Compounding Techniques	4
	Semester Credit Hours	**14**
Spring Semester		
PHTE 112	Pharmacy Law and Ethics	2
PHTE 118	Pharmacology II	3
PHTE 119	Community Pharmacy	3
PHTE 170	Pharmacy Clinical I	3
PHTE 189	Review for PTCB National Exam	1
KINE 100	Health and Wellness	1
KINA Activity Course		1
	Semester Credit Hours	**14**
Second Year		
Fall Semester		
BIOL 105 & 105L	Attributes of Living Systems-GTSC1 and Attributes of Living Systems Laboratory-GTSC1	4
ENGL 111	English Composition I-GTCO1	3
MATH 113	College Algebra-GTMA1 (or higher)	4
PSYC 150	General Psychology-GTSS3	3
SPCH 101	Interpersonal Communication	3
	Semester Credit Hours	**17**
Spring Semester		
PHTE 171	Pharmacy Clinical II	2
PHTE 250	Sterile Compounding and Aseptic Technique	2
PHTE 255	Advanced Practice and Nontraditional Roles	2
BIOL 209 & 209L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Laboratory	4
CHEM 131 & 131L	General Chemistry I-GTSC1 and General Chemistry Laboratory I-GTSC1	5
	Semester Credit Hours	**15**
	Total Semester Credit Hours	**60**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Entry-Level Pharmacy Technician (Technical Certificate)

Award: Technical Certificate
Program of Study: Entry-Level Pharmacy Technician
Program Code: 1199

The Entry-Level Pharmacy Technician Certificate is designed to cover both the academic and clinical skills necessary to perform as a entry-level pharmacy technician. The program begins fall semester of each year. The Certificate in Pharmacy Technician Program is designed to be completed in one year. The certificate will allow the student to sit for the National Certification Exam. The 31 credit hours will also count toward the Associate of Applied Science, Pharmacy Technician.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Demonstrate the ability to process a medication order completely, accurately, and efficiently (interpretation, drug product selection, computer warnings, packaging, and labeling, filling a prescription in an outpatient setting, and preparing IV medication using aseptic technique), while working under the supervision of a licensed pharmacist.\ (Specialized Knowledge and Applied Learning)
2. Perform accurate pharmacy calculations and proficiently apply computer skills, record keeping and billing in adherence to applicable industry regulations. (Quantitative Fluency)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than “C” will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(26 semester hours)

Code	Title	Semester Credit Hours
PHTE 111	Introduction to Pharmacy	3
PHTE 112	Pharmacy Law and Ethics	2
PHTE 114	Computer Skills for Pharmacy Technicians	1
PHTE 115	Pharmacology I	3
PHTE 116	Institutional Pharmacy	3
PHTE 118	Pharmacology II	3
PHTE 119	Community Pharmacy	3
PHTE 170	Pharmacy Clinical I	3
PHTE 189	Review for PTCB National Exam	1
PHTE 235	Calculations and Compounding Techniques	4
Total Semester Credit Hours		**26**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
PHTE 111	Introduction to Pharmacy	3
PHTE 114	Computer Skills for Pharmacy Technicians	1
PHTE 115	Pharmacology I	3
PHTE 116	Institutional Pharmacy	3
PHTE 235	Calculations and Compounding Techniques	4
	Semester Credit Hours	**14**
Spring Semester		
PHTE 112	Pharmacy Law and Ethics	2
PHTE 118	Pharmacology II	3
PHTE 119	Community Pharmacy	3
PHTE 170	Pharmacy Clinical I	3
PHTE 189	Review for PTCB National Exam	1
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**26**

Advising and Graduation Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around.

Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Philosophy

Program Description

Philosophy explores fundamental questions such as: Who am I? What is important? What is valuable? Why am I here? How do we tell truths from falsehoods? How should we behave? What is the best way to live? How do we know what we know? What is beautiful? The answers to these questions apply to other disciplines, problems, and life endeavors.

As Michael Morgenstern explains, philosophy can help us to be "better, more critical thinkers and communicators in our jobs. It can teach us to be skeptical of political rhetoric and advertising. It can help us to consider what is worth caring about and so perhaps to begin to make the world a better place." And Edward Tenner reminds us that, "Philosophy majors also score highest among disciplines in verbal reasoning and analytical writing on the GRE aptitude test." Rebecca Newberger Goldsteinit adds that philosophy is "always a good thing to know, no matter what you go on to study—to be able to think critically. To challenge your own point of view. Also, you need to be a citizen in this world. You need to know your responsibilities. You're going to have many moral choices every day of your life. And it enriches your inner life. You have lots of frameworks to apply to problems, and so many ways to interpret things. It makes life so much more interesting. It's us at our most human. And it helps us increase our humanity. No matter what you do, that's an asset."

In short, philosophy exemplifies a university education: you encounter iconic works, engage in rigorous debate, and learn to think critically. Studying philosophy complements any major.

Contact Information

Department of Languages, Literature, and Mass Communication
Escalante Hall 237
970.248.1687

Programs of Study

Minors

- Philosophy (Minor) (p. 697)

Philosophy (Minor)

Minor: Philosophy
Program Code: M280

Philosophy is unlike any other field, yet it applies to them all as it is the field from which all others arose. Philosophy retains as part of its function the critical inquiry into all other disciplines, problems, and life endeavors. While a career in philosophy usually means teaching philosophy, many professionals—writers, journalists, psychologists, doctors, lawyers, scientists, and many others—have degrees in philosophy because the skills philosophical thinking requires are essential to so many other areas.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course

sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(18 semester hours)

Code	Title	Semester Credit Hours
Required Courses		
Complete three of the following:		9
PHIL 110	Introduction to Philosophy-GTAH3	
PHIL 120	Ethics-GTAH3	
PHIL 130	Philosophy of Religion-GTAH3	
PHIL 275	Introduction To Logic	
Total Semester Credit Hours		**9**

Code	Title	Semester Credit Hours
Restricted Electives		
Select three of the following:		9
PHIL 340	The Examined Life	
PHIL 350	The Roots of Western Thought	
PHIL 396	Topics	
PHIL 410	Major Thinker	
PHIL 420	Major Works	
PHIL 430	Major Issues	
PHIL 496	Topics	
Total Semester Credit Hours		**9**

Advising and Graduation
Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student’s responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar’s Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar’s Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the “Intent to Graduate” form.

If a student’s petition for graduation is denied, it will be their responsibility to consult the Registrar’s Office regarding next steps.

Physical Therapy

Overview

The Physical Therapy program is a professional program leading to a Doctor of Physical Therapy (DPT) degree.

Physical therapists are health care professionals who are movement experts who improve quality of life by prescribing exercise, incorporating hands-on care, and patient education.

The professional curriculum is 8 semesters in duration, 105 credits, and includes 34 weeks of full-time clinical education over 4 separate rotations. The rotations are 6, 8, 8 & 12 weeks in duration. Students complete these rotations at a variety of clinical sites (e.g. acute care, long term rehabilitation, outpatient orthopedic, etc.). The program has been designed to meet all requirements associated with the Commission on Accreditation in Physical Therapy Education (CAPTE).

To practice physical therapy, students must be licensed in the state in which they desire to practice. To obtain licensure, students must graduate from an accredited program and pass the National Physical Therapy Exam (NPTE).

Effective April 25, 2023, Colorado Mesa University has been granted Candidate for Accreditation status by the Commission on Accreditation in Physical Therapy Education (3030 Potomac Ave., Suite 100, Alexandria, Virginia 22305-3085; phone: 703-706-3245; email: accreditation@apta.org). If needing to contact the program/institution directly, please call 970-248-2266 or email dptprogram@coloradomesa.edu.

Candidate for Accreditation is an accreditation status of affiliation with the Commission on Accreditation in Physical Therapy Education that indicates the program may matriculate students in technical/professional courses. Achievement of Candidate for Accreditation status does not assure that the program will be granted Initial Accreditation.

Candidacy is considered to be an accredited status, as such the credits and degree earned from a program with Candidacy status are considered, by CAPTE, to be from an accredited program. Therefore, students in the charter (first) class should be eligible to take the licensure exam even if CAPTE withholds accreditation at the end of the candidacy period. That said, it is up to each state licensing agency, not CAPTE, to determine who is eligible for licensure. Information on licensing requirements should be directed to the Federation of State Boards of Physical Therapy (FSBPT; www.fsbpt.org) or specific state boards (a list of state boards and contact information is available on FSBPT's website).

Contact Information

Physical Therapy Program
112 St. Mary's Medical Education Center
970.248.2266

Programs of Study

Graduate

- Physical Therapy (DPT) (p. 699)

Physical Therapy (DPT)

Overview

Degree: Doctor of Physical Therapy (DPT)
Program Code: 9101

The Physical Therapy program is a professional program leading to a Doctor of Physical Therapy (DPT) degree.

Physical therapists are health care professionals that are movement experts who improve quality of life by prescribing exercise, incorporating hands-on care and patient education.

The professional curriculum will be 8 semesters in duration, 105 credits and include 34 weeks of full-time clinical education over 4 separate rotations. The rotations will be 6, 8, 8 & 12 weeks in duration. Students will complete these rotations at a variety of clinical sites (e.g. acute care, long term rehabilitation, outpatient orthopedic, etc.). The program has been designed to meet all requirements associated with Commission on Accreditation in Physical Therapy Education (CAPTE).

To practice physical therapy, students must be licensed in the state in which they desire to practice. To obtain licensure, students must graduate from an accredited program and pass the National Physical Therapy Exam (NPTE).

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Candidacy is considered to be an accredited status, as such the credits and degree earned from a program with Candidacy status are considered, by CAPTE, to be from an accredited program. Therefore, students in the charter (first) class should be eligible to take the licensure exam even if CAPTE withholds accreditation at the end of the candidacy period. That said, it is up to each state licensing agency, not CAPTE, to determine who is eligible for licensure. Information on licensing requirements should be directed to the Federation of State Boards of Physical Therapy (FSBPT; www.fsbpt.org) or specific state boards (a list of state boards and contact information is available on FSBPT's website).

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option

prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional requirements apply to all CMU graduate-level degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Graduate certificates consist of a minimum of 5 credit hours. Master's degrees consist of a minimum of 30 credit hours. Doctoral degrees consist of a minimum of 60 credit hours.
- All credits in a graduate program must be minimally at the 500-level.
- At least fifty percent of the credit hours must be taken at CMU.
- Students must achieve a 3.00 cumulative GPA or higher in all CMU coursework.
- Students may not apply coursework with a grade lower than a "B" toward graduation requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Graduate Degree Requirements (p. 87)" in this catalog for a complete list of graduation requirements.
- All policies for graduate degrees are outlined in the Graduate Policies and Procedures Manual, Capstone Guidelines Manual, and Thesis and Dissertation Guidelines Manual, all of which are provided on the Graduate Studies website.

Specific to this degree:

- 105 semester hours required for Doctor of Physical Therapy (DPT) degree.

Program Specific Requirements

(105 semester hours)

Code	Title	Semester Credit Hours
PHYT 500	Anatomy	4
PHYT 501	Histology	1
PHYT 502	Physiology	3
PHYT 503 & 503L	Kinesiology-Biomechanics I and Kinesiology-Biomechanics I Laboratory	4
PHYT 504 & 504L	Kinesiology-Biomechanics II and Kinesiology-Biomechanics II Laboratory	4
PHYT 505	Essential Skills and Laboratory	3
PHYT 506	Professional Practice Considerations I	1
PHYT 507	Professional Practice Considerations II	2
PHYT 509	Musculoskeletal Conditions I and Laboratory	3
PHYT 510	Musculoskeletal Conditions II and Laboratory	3
PHYT 511	Musculoskeletal Conditions III and Laboratory	3
PHYT 512	Research I: Evidence-Based Practice	3
PHYT 513	Research II: Applied Statistics	3
PHYT 514	Diagnostic Imaging	2
PHYT 515	Therapeutic Modalities	3
PHYT 516	Pharmacology for Physical Therapy	2
PHYT 517	Neuroscience	3
PHYT 593	Capstone I	2
PHYT 599	Clinical Education I	3
PHYT 600 & 600L	Exercise Physiology and Exercise Physiology Laboratory	3
PHYT 601	Neuromuscular Conditions I and Laboratory	3
PHYT 602	Neuromuscular Conditions II and Laboratory	3
PHYT 603	Neuromuscular Conditions III and Laboratory	3
PHYT 604	Medical and Surgical Conditions	3
PHYT 605	Lifespan I: Pediatrics and Laboratory	3
PHYT 606	Lifespan II: Geriatrics	2
PHYT 607	Therapeutic Exercise and Laboratory	3
PHYT 608	Professional Practice Considerations III	2
PHYT 609	Professional Practice Considerations IV	2
PHYT 610	Cardiovascular and Pulmonary Conditions and Laboratory	3
PHYT 611	Differential Diagnosis and Laboratory	3
PHYT 612	Prosthetics-Orthotics and Laboratory	3
PHYT 693	Capstone II	2
PHYT 694	Interprofessional Education Seminar	1
PHYT 699	Clinical Education II	4
PHYT 793	Clinical Education IV	6
PHYT 799	Clinical Education III	4
Total Semester Credit Hours		**105**

Suggested Course Plan

First Year

Fall Semester		**Semester Credit Hours**
PHYT 500	Anatomy	4
PHYT 501	Histology	1
PHYT 502	Physiology	3
PHYT 503 & 503L	Kinesiology-Biomechanics I and Kinesiology-Biomechanics I Laboratory	4
PHYT 505	Essential Skills and Laboratory	3
PHYT 506	Professional Practice Considerations I	1
	Semester Credit Hours	**16**
Spring Semester		
PHYT 504 & 504L	Kinesiology-Biomechanics II and Kinesiology-Biomechanics II Laboratory	4
PHYT 507	Professional Practice Considerations II	2
PHYT 509	Musculoskeletal Conditions I and Laboratory	3
PHYT 512	Research I: Evidence-Based Practice	3
PHYT 514	Diagnostic Imaging	2
PHYT 515	Therapeutic Modalities	3
	Semester Credit Hours	**17**
Summer Semester		
PHYT 510	Musculoskeletal Conditions II and Laboratory	3
PHYT 511	Musculoskeletal Conditions III and Laboratory	3
PHYT 513	Research II: Applied Statistics	3
PHYT 516	Pharmacology for Physical Therapy	2

PHYT 517	Neuroscience	3
	Semester Credit Hours	**14**
Second Year		
Fall Semester		
PHYT 600 & 600L	Exercise Physiology and Exercise Physiology Laboratory	3
PHYT 601	Neuromuscular Conditions I and Laboratory	3
PHYT 604	Medical and Surgical Conditions	3
PHYT 605	Lifespan I: Pediatrics and Laboratory	3
PHYT 606	Lifespan II: Geriatrics	2
PHYT 607	Therapeutic Exercise and Laboratory	3
	Semester Credit Hours	**17**
Spring Semester		
PHYT 602	Neuromuscular Conditions II and Laboratory [1]	3
PHYT 608	Professional Practice Considerations III	2
PHYT 610	Cardiovascular and Pulmonary Conditions and Laboratory	3
PHYT 599	Clinical Education I	3
	Semester Credit Hours	**11**
Summer Semester		
PHYT 603	Neuromuscular Conditions III and Laboratory	3
PHYT 609	Professional Practice Considerations IV	2
PHYT 611	Differential Diagnosis and Laboratory	3
PHYT 612	Prosthetics-Orthotics and Laboratory	3
PHYT 694	Interprofessional Education Seminar	1
	Semester Credit Hours	**12**
Third Year		
Fall Semester		
PHYT 593	Capstone I [2]	2
PHYT 699	Clinical Education II	4
PHYT 799	Clinical Education III	4
	Semester Credit Hours	**10**
Spring Semester		
PHYT 693	Capstone II	2
PHYT 793	Clinical Education IV	6
	Semester Credit Hours	**8**
	Total Semester Credit Hours	**105**

1 PHYT 608 and PHYT 610 will be completed over the first 9 weeks of the term immediately followed by PHYT 599 Clinical Education I.

2 This course will be completed online while students are completing PHYT 699 Clinical Education II.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Physician Assistant

Program Description

The Bechtel Physician Assistant Studies Program consists of didactic and clinical academic work over the course of 28 months. Graduates of the program will be eligible to sit for the national certification examination for physician assistants through the National Commission on the Certification of Physician Assistants (NCCPA).

The Accreditation Review Commission on Education for the Physician Assistant (ARC-PA) has granted **Accreditation-Continued** status to the Bechtel Physician Assistant Program sponsored by Colorado Mesa University. Accreditation-Continued is an accreditation status granted when a currently accredited program is in compliance with the ARC-PA *Standards*.

Accreditation remains in effect until the program closes or withdraws from the accreditation process or until accreditation is withdrawn for failure to comply with the *Standards*. The approximate date for the next validation review of the program by the ARC-PA will be **September 2033**. The review date is contingent upon continued compliance with the Accreditation *Standards* and ARC-PA policy.

The program's accreditation history can be viewed on the ARC-PA website.

For updates on program accreditation and general program information, please visit the Masters of Physician Assistant Studies website.

Contact Information

Department of Kinesiology
Bechtel Physician Assistant Studies Program
1100 North Avenue
Grand Junction, CO 81501
970.248.1635
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Programs of Study

Graduate

- Physician Assistant (MPAS) (p. 702)

Physician Assistant (MPAS)

Degree: Master of Physician Assistant Studies
Program of Study: Physician Assistant
Program Code: 8160

The Physician Assistant program is a post-baccalaureate program, leading to a Master of Physician Assistant Studies degree (MPAS).

A Physician Assistant (PA) is a healthcare professional who is licensed to practice medicine under the supervision of a Doctor of medicine (MD) or Doctor of osteopathic medicine (DO) and can exercise delegated autonomy in decision-making. Physician Assistants can make clinical decisions and provide a variety of diagnostic, therapeutic, preventive, and health maintenance services to patients.

The CMU PA program offers a student-centered curriculum that has a unique emphasis on training compassionate and competent PAs to be ambassadors of wellness in their careers and communities. Our program places emphasis on wellness promotion and disease prevention for the individual patient and the community. The program is a rigorous 28-month, full-time on campus program consisting of 112 credits. The CMU PA Program curriculum is designed to educate clinicians with the knowledge and skills to be agents of excellence and innovation in the delivery of quality healthcare to the communities of Western Colorado and beyond.

To become a certified PA following completion of a Master's program, you must pass the Physician Assistant National Certifying Exam (PANCE).

Important information for this program:

- Enrollment requires PA program acceptance. Please see the catalog and program website for specific admissions requirements.
- All courses and course sequencing are required and must be completed at CMU.
- Students must successfully pass all didactic, clinical course work, and summative exam.

All CMU masters-level graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, information literacy, and ethical reasoning. In addition to these campus-wide student learning outcomes, a graduate of this program will be able to:

1. Medical Knowledge (MK)\ Demonstrate an understanding of the biomedical, clinical, and social knowledge necessary to care for patients across all ages and a variety of settings and contribute to scholarly advancement in the chosen field by completing projects individually and collaboratively (Specialized Knowledge/Applied Learning).
2. Interpersonal and Communication Skills (IC): Demonstrate an ability to elicit an accurate medical history and perform a detailed physical exam to make patient-centered diagnostic and therapeutic management plans and create oral and written arguments or explanations, well-grounded in discipline specific theories and methods, for specified audiences (Communication Fluency) and formulate and evaluate hypotheses as related to research problems, issues, concepts, and various perspectives (Critical Thinking).
3. Interpersonal and Communication Skills (IC): Demonstrate the ability to provide appropriate patient education and interventions for individual and community disease prevention and health promotion and employ discipline-specific logical, mathematical, statistical methods, or other analytical processes to address a topic or issue (Quantitative Fluency) and synthesize, evaluate, or refine the information base of various scholarly sources (Information Literacy).
4. Interpersonal and Communication Skills (IC): Demonstrate effective oral and written communication, which results in an exchange of information and collaboration with patients, families, caregivers, and medical professionals and synthesize, evaluate, or refine the information base of various scholarly sources (Information Literacy) and articulate moral, ethical, legal, or professional challenges within the discipline (Ethical Reasoning).
5. Patient Care (PC): Apply acquired medical, behavioral, and social science knowledge necessary to evaluate, diagnose, and care for patients across the life span in a variety of clinical settings and employ discipline-specific logical, mathematical, statistical methods, or other analytical processes to address a topic or issue (Quantitative Fluency) and create oral and written arguments or explanations, well-grounded in discipline specific theories and methods, for specified audiences (Communication Fluency) and formulate and evaluate hypotheses as related to research problems, issues, concepts, and

various perspectives (Critical Thinking) and synthesize, evaluate, or refine the information base of various scholarly sources (Information Literacy).

6. Patient Care (PC): Demonstrate the clinical problem-solving skills necessary to develop a differential diagnosis and patient-centered diagnostic and therapeutic management plans that include pharmacologic and non-pharmacologic interventions and employ discipline-specific logical, mathematical, statistical methods, or other analytical processes to address a topic or issue (Quantitative Fluency) and create oral and written arguments or explanations, well-grounded in discipline specific theories and methods, for specified audiences (Communication Fluency) and formulate and evaluate hypotheses as related to research problems, issues, concepts, and various perspectives (Critical Thinking) and synthesize, evaluate, or refine the information base of various scholarly sources (Information Literacy).
7. Patient Care (PC): Perform core technical skills required in primary care including diagnostic and therapeutic clinical procedures and employ discipline-specific logical, mathematical, statistical methods, or other analytical processes to address a topic or issue (Quantitative Fluency) and create oral and written arguments or explanations, well-grounded in discipline specific theories and methods, for specified audiences (Communication Fluency) and formulate and evaluate hypotheses as related to research problems, issues, concepts, and various perspectives (Critical Thinking) and synthesize, evaluate, or refine the information base of various scholarly sources (Information Literacy).
8. Patient Care (PC) Integrate evidence from scientific studies to make evidenced-based and culturally sensitive clinical judgments in the individualized care and management of patients and contribute to scholarly advancement in the chosen field by completing projects individually and collaboratively (Specialized Knowledge/Applied Learning) and synthesize, evaluate, or refine the information base of various scholarly sources (Information Literacy) and\ articulate moral, ethical, legal, or professional challenges within the discipline (Ethical Reasoning).
9. Professionalism (P): Demonstrate professionalism and ethical behaviors of compassion, respect, integrity, and accountability, while maintaining sensitivity and responsiveness to patients, families and the multidisciplinary healthcare team and articulate moral, ethical, legal, or professional challenges within the discipline (Ethical Reasoning).
10. Professionalism (P): Demonstrate continuous self-assessment and implementation of an improvement plan that includes compassionate self-care and a commitment to life-long learning and articulate moral, ethical, legal, or professional challenges within the discipline (Ethical Reasoning) and create oral and written arguments or explanations, well-grounded in discipline specific theories and methods, for specified audiences (Communication Fluency).

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Graduate Degree Requirements

The following institutional requirements apply to all CMU graduate-level degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Graduate certificates consist of a minimum of 5 credit hours. Master's degrees consist of a minimum of 30 credit hours. Doctoral degrees consist of a minimum of 60 credit hours.
- All credits in a graduate program must be minimally at the 500-level.
- At least fifty percent of the credit hours must be taken at CMU.
- Students must achieve a 3.00 cumulative GPA or higher in all CMU coursework.
- Students may not apply coursework with a grade lower than a "B" toward graduation requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Graduate Degree Requirements (p. 87)" in this catalog for a complete list of graduation requirements.
- All policies for graduate degrees are outlined in the Graduate Policies and Procedures Manual, Capstone Guidelines Manual, and Thesis and Dissertation Guidelines Manual, all of which are provided on the Graduate Studies website.

Specific to this program:

- 112 semester hours for the MPAS in Physician Assistant.

Program Specific Requirements

(112 semester hours)

Code	Title	Semester Credit Hours
PHAS 500	Advanced Human Anatomy	4
PHAS 501	Biomedical Science	4
PHAS 502	Clinical Pharmacology	3
PHAS 503	Health Promotion and Disease Prevention	2
PHAS 510	Foundation to Clinical Medicine	2
PHAS 511	Clinical Medicine I	13
PHAS 512	Clinical Medicine II	13
PHAS 513	Clinical Medicine III	13
PHAS 520	History and Physical Exam	3
PHAS 521	Patient Assessment, Diagnostics, and Clinical Skills Lab I	2
PHAS 522	Patient Assessment, Diagnostics, and Clinical Skills Lab II	2

PHAS 523	Patient Assessment, Diagnostics, and Clinical Skills Lab III	2
PHAS 530	Introduction to Research and Evidence-Based Medicine	2
PHAS 531	Clinical Reasoning I	2
PHAS 532	Clinical Reasoning II	2
PHAS 533	Clinical Reasoning III	2
PHAS 541	PA Professionalism I	2
PHAS 542	PA Professionalism II	2
PHAS 543	PA Professional Capstone	1
PHAS 570	Clinical Year Seminar	1
PHAS 571	Family Medicine Rotation	4
PHAS 572	Behavioral Medicine and Mental Health Rotation	2
PHAS 573	Internal Medicine Rotation	4
PHAS 574	Women's Health Rotation	2
PHAS 575	Pediatric Medicine Rotation	2
PHAS 576	Surgery Rotation	4
PHAS 577	Emergency Medicine Rotation	4
PHAS 578	Inpatient Medicine Rotation	4
PHAS 579	Elective Rotation I	4
PHAS 580	Elective Rotation II	4
PHAS 581	Summative Seminar	1
Total Semester Credit Hours		**112**

Suggested Course Plan

Note: The below rotation schedule is a version of a possible schedule. Individual student's rotation schedules during the clinical year will vary.

Also, while the sequencing below culminates in a total of 113-115 semester credit hours, students must complete a minimum of 112 semester credit hours as required for completion of the degree, including satisfactory completion of all required courses. Plan to complete requirements with varying hour options accordingly and consult with advisor.

First Year		
Spring Semester		**Semester Credit Hours**
PHAS 541	PA Professionalism I	2
PHAS 500	Advanced Human Anatomy	4
PHAS 501	Biomedical Science	4
PHAS 502	Clinical Pharmacology	3
PHAS 510	Foundation to Clinical Medicine	2
PHAS 520	History and Physical Exam	3
PHAS 530	Introduction to Research and Evidence-Based Medicine	2
	Semester Credit Hours	**20**
Summer Semester		
PHAS 511	Clinical Medicine I	13
PHAS 531	Clinical Reasoning I	2
PHAS 521	Patient Assessment, Diagnostics, and Clinical Skills Lab I	2
	Semester Credit Hours	**17**
Fall Semester		
PHAS 512	Clinical Medicine II	13
PHAS 532	Clinical Reasoning II	2
PHAS 522	Patient Assessment, Diagnostics, and Clinical Skills Lab II	2
PHAS 503	Health Promotion and Disease Prevention	2
	Semester Credit Hours	**19**
Second Year		
Spring Semester		
PHAS 513	Clinical Medicine III	13
PHAS 533	Clinical Reasoning III	2
PHAS 523	Patient Assessment, Diagnostics, and Clinical Skills Lab III	2
PHAS 570	Clinical Year Seminar	1
	Semester Credit Hours	**18**
Summer Semester		
PHAS 571	Family Medicine Rotation	4
PHAS 572	Behavioral Medicine and Mental Health Rotation	2
PHAS 573	Internal Medicine Rotation	4
PHAS 542	PA Professionalism II	2
	Semester Credit Hours	**12**
Fall Semester		
PHAS 574	Women's Health Rotation	2
PHAS 575	Pediatric Medicine Rotation	2
PHAS 576	Surgery Rotation	4
PHAS 577	Emergency Medicine Rotation	4
PHAS 543	PA Professional Capstone	1
	Semester Credit Hours	**13**
Third Year		
Spring Semester		
PHAS 578	Inpatient Medicine Rotation	4
PHAS 579	Elective Rotation I	4
PHAS 580	Elective Rotation II	4
PHAS 581	Summative Seminar	1
PHAS 595	Independent Study (if needed)	1-3
	Semester Credit Hours	**14-16**
	Total Semester Credit Hours	**113-115**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.

- Submit the “Intent to Graduate” form to the Registrar’s Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's “Intent to Graduate” does not automatically move to a later graduation date.

Physics

Program Description

Physics is the study of the universe: what it’s made of and how it works. Physics uses a small collection of basic laws and principles to describe a vast range of natural phenomena, such as black holes, galaxies, plasmas, superconductivity, nanostructured materials, lasers, photons and atoms.

Physics is the foundation of other fields such as engineering, materials science, electronics and chemistry. Beyond these, it finds application in many technical fields, such as optics, scientific instrumentation, biology and medicine.

A degree in Physics equips students with strong analytical problem solving, mathematical, experimental and computational skills. These have enabled physics majors to secure employment in research, engineering, medical physics and business as well as enter graduate programs in physics, chemistry, aerospace engineering, nuclear engineering and planetary science.

A physics minor is a valuable complement to a major in mathematics, biology, chemistry, geology or environmental science.

Contact Information

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Programs of Study

Associates

- Physics, Liberal Arts (AS) (p. 708)

Bachelors/Minors

- Physics (BS) (p. 705)
- Physics (Minor) (p. 710)

Physics (BS)

Degree: Bachelor of Science
Major: Physics
Program Code: 3471

Physics is the study of the universe: what it is made of and how it works, ranging from stars and galaxies to atoms and nuclei and everything in between. Physics forms the foundation of many technical fields including electronics and optics. Physics also features prominently in many of the hottest areas of current research and innovation, such as the multidisciplinary fields of nanotechnology and biophysics.

The physics program serves as a foundation for a wide array of careers. Physics majors from Colorado Mesa University have gone on to graduate programs in physics, astrophysics, chemistry, materials science, and aerospace engineering. They have also gone directly into jobs in engineering, business, and research.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Show fluency with the major fields of physics (classical mechanics, electromagnetism, statistical physics, and quantum theory). (Specialized Knowledge)
2. Use mathematical representations to analyze physical scenarios. (Quantitative Fluency)
3. Use laboratory techniques to investigate experimentally physical phenomena. (Applied Learning)
4. Communicate effectively about topics in physics. (Communication Fluency)
5. Execute a project which addresses a significant and complex issue in physics, integrating knowledge and techniques from different areas of physics. (Specialized Knowledge/Applied Learning)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 151	Calculus I-GTMA1 [2]	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

[1] Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

[2] This is a 5 credit course. 3 credits apply to the Essential Learning requirements and 2 credits apply to electives.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3

ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(14 semester hours, must earn a grade of "C" or better in all courses)

Code	Title	Semester Credit Hours
PHYS 131 & 131L	Fundamental Mechanics-GTSC1 and Fundamental Mechanics Laboratory-GTSC1	5
PHYS 132 & 132L	Electromagnetism and Optics-GTSC1 and Electromagnetism and Optics Laboratory-GTSC1	5
Select one of the following options:		4
CSCI 111	CS1: Foundations of Computer Science	
CSCI 110 & 110L	Beginning Programming and Beginning Programming Laboratory	
Total Semester Credit Hours		**14**

Program Specific Degree Requirements

(52-53 semester hours, must pass all courses with a grade of "C" or higher and maintain a 2.00 cumulative GPA or higher in coursework in this area.)

Code	Title	Semester Credit Hours
Core Courses		
PHYS 230	Intermediate Dynamics	3
PHYS 231	Modern Physics	3
PHYS 251	Electronics for Scientists	3
PHYS 252	Intermediate Laboratory	3
PHYS 311	Electromagnetic Theory I	3
PHYS 321	Quantum Theory I	3
PHYS 331	Advanced Laboratory I	3
PHYS 342	Advanced Dynamics	3
PHYS 362	Statistical and Thermal Physics	3
PHYS 482	Senior Research	1
PHYS 482	Senior Research	1
PHYS 494	Physics Seminar	1
PHYS 494	Physics Seminar	1
MATH 152	Calculus II	5
MATH 253	Calculus III	4
MATH 260	Differential Equations	3-4
or MATH 236	Differential Equations and Linear Algebra	
MATH 360	Methods of Applied Mathematics	3
Total Semester Credit Hours		**46-47**

Code	Title	Semester Credit Hours
Restricted Electives		
Select two of the following:		6
PHYS 312	Electromagnetic Theory II	
PHYS 372	General Relativity	
PHYS 396	Topics [1]	
PHYS 422	Quantum Theory II	
PHYS 441	Solid State Physics	
PHYS 471	Computational Physics I	
PHYS 472	Computational Physics II	
PHYS 473	Modern Optics	
PHYS 496	Topics [1]	
Total Semester Credit Hours		**6**

[1] PHYS 396/PHYS 496 may be taken more than once so long as the topic is not repeated.

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours. 16-17 semester hours; 12 hours of upper division may be needed.

Code	Title	Semester Credit Hours
MATH 151	Calculus I-GTMA1	2
Select additional electives		14-15
Total Semester Credit Hours		**16-17**

Suggested Course Plan

While the sequencing below culminates in at total of 119-121 semester credit hours, students must complete a minimum of 120 semester credit hours as required for completion of the degree, including satisfactory completion of all required courses. Plan to complete requirements with varying hour options accordingly.

First Year		
Fall Semester		**Semester Credit Hours**
PHYS 131 & 131L	Fundamental Mechanics-GTSC1 and Fundamental Mechanics Laboratory-GTSC1	5
MATH 151	Calculus I-GTMA1	5
Essential Learning - Humanities		3
ENGL 111	English Composition I-GTCO1	3
	Semester Credit Hours	**16**
Spring Semester		
PHYS 132 & 132L	Electromagnetism and Optics-GTSC1 and Electromagnetism and Optics Laboratory-GTSC1	5
MATH 152	Calculus II	5
ENGL 112	English Composition II-GTCO2	3
Essential Learning - History		3
	Semester Credit Hours	**16**
Second Year		
Fall Semester		
PHYS 230	Intermediate Dynamics	3

PHYS 251	Electronics for Scientists	3
MATH 253	Calculus III	4
KINA Activity		1
Select one of the following:		4
CSCI 111	CS1: Foundations of Computer Science	
CSCI 110 & 110L	Beginning Programming and Beginning Programming Laboratory	
	Semester Credit Hours	**15**
Spring Semester		
PHYS 231	Modern Physics	3
PHYS 252	Intermediate Laboratory	3
MATH 260 or MATH 236	Differential Equations or Differential Equations and Linear Algebra	3-4
Essential Learning - Social and Behavioral Sciences		3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
	Semester Credit Hours	**16-17**
Third Year		
Fall Semester		
PHYS 311	Electromagnetic Theory I	3
PHYS 342	Advanced Dynamics	3
MATH 360	Methods of Applied Mathematics	3
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - Natural Science with Lab		4
	Semester Credit Hours	**16**
Spring Semester		
PHYS 321	Quantum Theory I	3
PHYS 331	Advanced Laboratory I	3
PHYS 362	Statistical and Thermal Physics	3
Essential Learning - Fine Arts		3
General Elective		3
	Semester Credit Hours	**15**
Fourth Year		
Fall Semester		
Restricted Elective		3
PHYS 482	Senior Research	1
PHYS 494	Physics Seminar	1
General Electives		7
	Semester Credit Hours	**12**
Spring Semester		
Restricted Elective		3
KINE 100	Health and Wellness	1
Essential Learning - Natural Science		3
PHYS 482	Senior Research	1
PHYS 494	Physics Seminar	1
General Electives		4-5
	Semester Credit Hours	**13-14**
	Total Semester Credit Hours	**119-121**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Physics, Liberal Arts (AS)

Degree: Associate of Science
Major: Liberal Arts
Emphasis: Physics
Program Code: 2433

The Associate of Science (AS) degree is designed for students who intend to continue their education and obtain a baccalaureate degree. The AS is the appropriate choice for students who will take upper division coursework in mathematics, biological sciences, and physical sciences. The degree program includes the Colorado Statewide Essential Learning Core and meets the lower division Essential Learning requirements at most public institutions in Colorado. A number of emphases are available within the AS degree. Students choosing one of these emphases will take courses in a discipline in addition to the Essential Learning core.

Physics is the study of the universe: what it's made of and how it works, ranging from stars and galaxies to atoms and nuclei and everything in between. Physics forms the foundation of many technical fields including electronics and optics. Physics also features prominently in many of the hottest areas of current research and innovation, such as the multidisciplinary fields of nanotechnology and biophysics. Our goal is to provide students with the critical and analytical thinking skills needed to solve problems. This skill set prepares students for further study and for jobs in engineering, business, and research.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social

responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Show fluency with aspects of the major fields of physics typical for introductory and sophomore level physics courses. (Specialized Knowledge)
2. Use mathematical representation to analyze physical scenarios. (Quantitative Fluency)
3. Use laboratory techniques to analyze physical scenarios. (Critical Thinking)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU or CMU Tech Associate of Science (AS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours total.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade of “C” or higher must be earned in all Essential Learning courses in order to be accepted for transfer under the Colorado Core Transfer Consortium General Education curriculum or gtPathways, Colorado’s guaranteed transfer program.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 15 semester credit hours for an associate of science degree. A maximum of 6 of the 15 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 151	Calculus I-GTMA1 [2]	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

[1] Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

[2] This is a 5 credit course. 3 credits apply to the Essential Learning requirements and 2 credits apply to Physics Specialization courses

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Total Semester Credit Hours		**2**

Program Specific Degree Requirements

(24 Semester Hours. No more than one “D” may be used in satisfying major requirements. Additionally, a cumulative grade point average of 2.5 or higher must be maintained for coursework in this area.)

Code	Title	Semester Credit Hours
Core Courses		
PHYS 131	Fundamental Mechanics-GTSC1	4
PHYS 131L	Fundamental Mechanics Laboratory-GTSC1	1

PHYS 132	Electromagnetism and Optics-GTSC1	4
PHYS 132L	Electromagnetism and Optics Laboratory-GTSC1	1
PHYS 230	Intermediate Dynamics	3
or PHYS 231	Modern Physics	
Physics Specialization Courses		
MATH 151	Calculus I-GTMA1	2
MATH 152	Calculus II	5
MATH 253	Calculus III	4
Total Semester Credit Hours		**24**

General Electives

(3 semester hours)

Code	Title	Semester Credit Hours
Select elective(s)		3
Total Semester Credit Hours		**3**

Suggested Course Plan

First Year		
Fall Semester		
PHYS 131	Fundamental Mechanics-GTSC1	4
PHYS 131L	Fundamental Mechanics Laboratory-GTSC1	1
ENGL 111	English Composition I-GTCO1	3
MATH 151	Calculus I-GTMA1	5
Essential Learning - History		3
	Semester Credit Hours	**16**
Spring Semester		
PHYS 132	Electromagnetism and Optics-GTSC1	4
PHYS 132L	Electromagnetism and Optics Laboratory-GTSC1	1
ENGL 112	English Composition II-GTCO2	3
MATH 152	Calculus II	5
General Elective		3
	Semester Credit Hours	**16**
Second Year		
Fall Semester		
MATH 253	Calculus III	4
Essential Learning - Natural Science with lab		4
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - Humanities		3
	Semester Credit Hours	**14**
Spring Semester		
PHYS 230	Intermediate Dynamics [1]	3
Essential Learning - Fine Arts		3
Essential Learning - Natural Science without lab		3
Essential Learning - Social and Behavioral Sciences		3
KINE 100	Health and Wellness	1
Wellness Requirement - Activities Course		1
	Semester Credit Hours	**14**
	Total Semester Credit Hours	**60**

[1] Students that intend to continue with Colorado Mesa University should take ESSL 290 and ESSL 200 during the final semester of their Associate of Science work.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Physics (Minor)

Minor: Physics
Program Code: M430

Physics is the study of the universe: what it is made of and how it works, ranging from stars and galaxies to atoms and nuclei and everything in between. Physics forms the foundation of many technical fields, including electronics and optics. Physics features prominently in many of the hottest areas of current research and innovation, such as the multidisciplinary fields of nanotechnology and biophysics.

A physics minor is a good complement to a mathematics, chemistry, geology, environmental science, or biology major.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(20 semester hours)

Code	Title	Semester Credit Hours
PHYS 131	Fundamental Mechanics-GTSC1	4
PHYS 131L	Fundamental Mechanics Laboratory-GTSC1	1
PHYS 132	Electromagnetism and Optics-GTSC1	4
PHYS 132L	Electromagnetism and Optics Laboratory-GTSC1	1
PHYS 230	Intermediate Dynamics	3
or PHYS 231	Modern Physics	
PHYS 494	Physics Seminar	1
3 semester hours of Upper Division Physics Elective		3
Select one of the following:		3
PHYS 311	Electromagnetic Theory I	
PHYS 321	Quantum Theory I	
PHYS 342	Advanced Dynamics	
PHYS 362	Statistical and Thermal Physics	
Total Semester Credit Hours		**20**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student’s responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar’s Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar’s Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the “Intent to Graduate” form.

If a student’s petition for graduation is denied, it will be their responsibility to consult the Registrar’s Office regarding next steps.

Political Science

Program Description

The Political Science program provides students with a working knowledge of the concepts, theories, approaches and practical applications of political and governmental systems within the local, state, national and international arenas. Graduates are equipped to compete in the job market and the marketplace of ideas.

Regarding the job market, majors work closely with their academic advisor to customize a curriculum that prepares them for competitive applications to law or graduate school and/or careers in government, non-profit organizations, global advocacy, business, military or homeland security, and emergency management. In addition to holding elective office, graduates have worked as lobbyists, congressional staff members, gubernatorial staff, and state agency officials. Graduates have also been admitted to law school or graduate school at the University of Denver, Cornell University, Colorado State University, George Mason University, the University of Minnesota, the University of New Mexico, UC Denver, and the University of Colorado. Internship opportunities allow students to gain experience and employment while furthering their education. Recent interns have served in the U.S. Congress, the Colorado General Assembly, the Mesa County District Attorney's Office, state-level agencies, the City of Fruita, and congressional campaigns. Many former student interns are now working in jobs they obtained directly as a result of their internship experience.

Regarding the marketplace of ideas, the program builds engaged, global citizens who explore all sides of issues, think critically, communicate clearly, and use their skills responsibly. To that end, students engage in experiential learning opportunities in and/or outside of class. Students also have opportunities to work with faculty on research projects (as volunteers or as paid research assistants) on recreation management, natural resource management, and/or economic development. Faculty in the program sponsor a Political Science Club and a local chapter of the national honor society Pi Sigma Alpha.

A minor in political science is an excellent complement for students majoring in many other fields, particularly mass communications, business, and criminal justice. The minor provides a diverse understanding of politics and government organizations; this is helpful to anyone working in a career that is either regulated by government, has government as a customer, or needs to lobby government to protect its interests.

Desmond Tutu famously said: "Don't raise your voice, improve your argument." Nowhere does this advice seem more pertinent than in today's political environment. Graduates leave the program with strong arguments and marketable skills. The goal of the political science faculty is to help students become well-rounded citizens by preparing them to compete in both the employment market and the marketplace of ideas.

Contact Information

Department of Social and Behavioral Sciences
Houston Hall
970.248.1696

Programs of Study Bachelors/Minors

- Political Science (BA) (p. 712)
- Political Science (Minor) (p. 715)

Political Science (BA)

Degree: Bachelor of Arts
Major: Political Science
Program Code: 3718

The Political Science program provides students with a working knowledge of the concepts, theories and approaches to the discipline of Political Science and their practical application to political and governmental systems within the state, national and international arenas. Students majoring in Political Science are prepared for careers in government, law, criminal justice, and non-governmental organizations. Many graduates are currently employed as congressional staff members, gubernatorial staff, state agency officials, hold elective office or have successfully graduated from law school.

One attractive aspect of the program is the opportunity to intern in a variety of settings in Washington, D.C., Denver and Grand Junction. These internships allow students a chance to acquire practical experience while increasing the opportunity to network. Many of our student interns are now working in jobs they obtained directly as a result of their intern experience. CMU political science graduates have also been successful in gaining entrance to graduate and law schools. The Political Science program supports a Political Science Club and a local chapter of the national honor society Pi Sigma Alpha.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Critically analyze the theories and concepts relevant to political science (Specialized Knowledge);
2. Defend a political argument using established methods (empirical and normative) in the field of political science (Intellectual Skills, Communication Fluency, Quantitative Fluency);
3. Articulate diverse perspective surrounding a political issue (Critical Thinking, Information Literacy);
4. Devise a strategy to promote civic involvement within the broader community for themselves and others (Civic Engagement)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option

prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Specific to this program:

- Experiential learning component is required for this degree. Please see your advisor for details specific to your plan of study.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 110	Mathematical Investigations-GTMA1	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [2]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

[1] Must receive a grade of “C” or better and must be completed by the time the student has 60 semester hours.

[2] One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(6 semester hours, must pass all courses with a grade of “C” or higher)

Code	Title	Semester Credit Hours
Two consecutive classes in the same foreign language		6
Total Semester Credit Hours		**6**

Program Specific Degree Requirements

(48-49 semester hours, must pass all courses with a grade of “C” or higher and maintain a 2.00 cumulative GPA or higher in coursework in this area.)

Code	Title	Semester Credit Hours
Political Science Core		
POLS 101	American Government-GTSS1	3
POLS 151	Introduction to Political Ideas	3
POLS 201	Introduction to Political Inquiry	2
POLS 236	State and Local Government	3

POLS 261	Comparative Politics-GTSS1	3
POLS 270	World Politics	3
POLS 324	United States Congress [1]	3
or POLS 325	The American Presidency	
POLS 342	Public Administration [2]	3
or POLS 462	Public Policy: Theory and Practice	
POLS 351	Public and Elite Political Behavior	3
POLS 452	Political Theory: Classical and Medieval [3]	3
or POLS 453	Political Theory: Modern	
POLS 471	International Organizations and Law [4]	3
or POLS 482	International Relations Theory	
POLS 493	Senior Capstone	1
Political Science Electives		
Select four of the following (for a total of 12 credits, 9 credits must be upper-division):		12
POLS 324	United States Congress [1]	
POLS 325	The American Presidency [1]	
POLS 328	American Court Systems	
POLS 333	Rural Politics and Civic Engagement [5]	
POLS 335	Political Campaigns [5]	
POLS 342	Public Administration [2]	
POLS 353	Politics of Human and Natural Resources	
POLS 352	Religion and Politics	
POLS 354	Political Geography	
POLS 356	Indigenous Politics	
POLS 366	Government and Politics of Asia	
POLS 372	Peace and Conflict Studies	
POLS 373	Global Politics of Women and Gender	
POLS 395	Independent Study	
POLS 396	Topics	
POLS 412	Constitutional Law	
POLS 452	Political Theory: Classical and Medieval [3]	
POLS 453	Political Theory: Modern [3]	
POLS 462	Public Policy: Theory and Practice [2]	
POLS 471	International Organizations and Law [4]	
POLS 475	American Foreign and National Security Policy	
POLS 482	International Relations Theory [4]	
POLS 484	Environmental Political Theory	
POLS 488	Environmental Politics and Policy	
POLS 495	Independent Study	
POLS 496	Topics	
PADM 315	Public Management	
PADM 350	Ethics in Public Administration	
PADM 442	Public Budgeting	
EMDP 211	Introduction to Emergency Management	
EMDP 321	Hazard Preparedness and Mitigation	
EMDP 331	Disaster Response and Recovery	
Career Preparation		
Select one of the following:		3-4
STAT 215	Statistics for Social and Behavioral Sciences	
SPCH 308	Argumentation	
POLS 386	Study Away: Off-Campus Learning Experience [5,6]	
POLS 399	Internship [5,6]	
POLS 499	Internship [5,6]	
Experiential Learning		
Must complete one of the following courses or non-course options. If choosing a non-course option, it must be approved by your faculty advisor.		
ASG Leadership		
Capital Conference		
Non-Credit Internship		
Semester Study Abroad		
Volunteer Community Service with Portfolio Documentation		
POLS 333	Rural Politics and Civic Engagement [5]	
POLS 335	Political Campaigns [5]	
POLS 386	Study Away: Off-Campus Learning Experience [5]	
POLS 399	Internship [5,6]	
POLS 499	Internship [5,6]	
Total Semester Credit Hours		**48-49**

1. Student takes either POLS 324 or POLS 325 as their core class. The one not selected as a core class can be taken as a political science elective.
2. Student takes either POLS 342 or POLS 462 as their core class. The one not selected as a core class can be taken as a political science elective.
3. Student takes either POLS 452 or POLS 453 as their core class. The one not selected as a core class can be taken as a political science elective.
4. Student takes either POLS 471 or POLS 482 as their core class. The one not selected as a core class can be taken as a political science elective.
5. Course fulfills the experiential learning requirement.
6. Must total a minimum of 3 credits.

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours, including 40 hours of upper division credits. 28-29 semester hours, including 9-15 semester hours of upper division may be needed.

Code	Title	Semester Credit Hours
Select electives		28-29
Total Semester Credit Hours		**28-29**

Suggested Course Plan

While the sequencing below culminates in at a total of 119-120 semester credit hours, students must complete a minimum of 120 semester credit hours as required for completion of the degree, including satisfactory completion of all required courses. The number of General Electives hours taken by a student can be adjusted to meet this minimum.

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
MATH 110	Mathematical Investigations-GTMA1	3

Essential Learning - History		3
Essential Learning - Natural Science		3
POLS 101	American Government-GTSS1	3
	Semester Credit Hours	**15**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
Essential Learning - Humanities		3
Essential Learning - Social and Behavioral Sciences		3
POLS 151	Introduction to Political Ideas	3
POLS 270	World Politics	3
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
Essential Learning - Fine Arts		3
Essential Learning - Natural Science with Lab		4
Foundation Course - Foreign Language		3
KINE 100	Health and Wellness	1
POLS 201	Introduction to Political Inquiry	2
POLS 236	State and Local Government	3
	Semester Credit Hours	**16**
Spring Semester		
Essential Learning - Social and Behavioral Sciences		3
Foundation Course - Foreign Language		3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
POLS 261	Comparative Politics-GTSS1	3
General Elective		3
	Semester Credit Hours	**16**
Third Year		
Fall Semester		
KINA Activity		1
POLS 324 or POLS 325	United States Congress [1] or The American Presidency	3
POLS 452 or POLS 453	Political Theory: Classical and Medieval or Political Theory: Modern	3
Political Science Elective		3
Career Preparation Course		3-4
General Elective		3
	Semester Credit Hours	**16-17**
Spring Semester		
POLS 351	Public and Elite Political Behavior	3
POLS 342 or POLS 462	Public Administration or Public Policy: Theory and Practice	3
POLS 471 or POLS 482	International Organizations and Law or International Relations Theory	3
General Elective		3
General Elective		3
	Semester Credit Hours	**15**
Fourth Year		
Fall Semester		
POLS 493	Senior Capstone	1
Political Science Elective		3
Political Science Elective		3
General Elective		3
General Elective		3
	Semester Credit Hours	**13**
Spring Semester		
Political Science Elective		3
General Elective		3
General Elective		3
General Elective		3
General Elective		1
	Semester Credit Hours	**13**
	Total Semester Credit Hours	**119-120**

[1] POLS 324 is offered in the Spring Semester. See your major advisor to adjust your suggested course sequencing.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Political Science (Minor)

Minor: Political Science
Program Code: M730

A minor in Political Science is a great complement for students majoring in any other field, particularly Mass Communications and Criminal Justice. The degree provides a thorough understanding of politics and government organizations which is helpful to anyone working in a career that is either regulated by government, has government as a customer, or needs to lobby government to protect its interests.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(23 semester hours)

Code	Title	Semester Credit Hours
POLS 101	American Government-GTSS1	3
POLS 151	Introduction to Political Ideas	3
POLS 201	Introduction to Political Inquiry	2
POLS 236	State and Local Government	3
POLS 270	World Politics	3
Select 9 semester hours of Upper Division POLS - Political Science		9
Total Semester Credit Hours		**23**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student’s responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar’s Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar’s Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the “Intent to Graduate” form.

If a student’s petition for graduation is denied, it will be their responsibility to consult the Registrar’s Office regarding next steps.

Psychology

Program Description

The Psychology program provides students with a working knowledge of the methods and findings of modern psychology. Students may pursue the Bachelor of Arts (BA) in Psychology which is congruent with APA guidelines for the undergraduate psychology major. All majors are required to complete some laboratory coursework in which they conduct psychological science research using modern statistical analyses. Internships are available for psychology majors and are based on student interest and availability in the local community. Students majoring in psychology are prepared to work in a wide variety of settings, including human services (counseling and social work), public affairs, business, sales, criminal justice, and (following graduate study) mental health counseling, teaching, and research. The Psychology program provides a strong foundation for graduate study in psychology and related disciplines.

The Psychology program sponsors the Psychology Club, NAMI on Campus, and a local chapter of the national honor society in psychology, Psi Chi. Through active membership in these organizations, students are encouraged to become involved in community service and to attend and present their research at regional and national psychology conferences.

A minor in psychology requires the student to acquire working knowledge of the methods and findings of modern psychology. A student with this minor will have a deeper understanding of the processes that shape behavior, which can then be applied to a wide variety of areas.

A minor in forensic investigation – psychology provides students with a base in forensic psychology. Students may be better prepared to enter graduate programs in forensic psychology. Students will be better prepared to use psychological concepts in criminal justice investigation jobs.

Contact Information

Department of Social and Behavioral Sciences
Houston Hall
970.248.1696

Programs of Study Bachelors/Minors

- Counseling Psychology, Psychology (BA) (p. 717)
- Forensic Investigation - Psychology (Minor) (p. 723)
- Psychology (BA) (p. 720)
- Psychology (Minor) (p. 724)

Counseling Psychology, Psychology (BA)

Degree: Bachelor of Arts
Major: Psychology
Concentration: Counseling Psychology
Program Code: 3724

This program is no longer accepting new students.

Students may pursue the Psychology BA degree or the Psychology BA degree with a concentration in Counseling Psychology. All majors are required to complete some laboratory coursework in which they conduct research in psychological science. Practica are required for counseling students and are available at nearby human service agencies and treatment centers. The psychology programs provide students with a working knowledge of the methods and findings of modern psychology.

Students majoring in psychology are prepared to work in a wide variety of settings, including human services (counseling and social work), public affairs, business, sales, criminal justice, and (following graduate study) psychotherapy, teaching and research. The psychology program at provides a strong foundation for graduate study in psychology and related disciplines.

Many of CMU´s psychology majors have successfully continued their education in graduate programs in psychology. A few have continued on to medical school or law school. The psychology program sponsors a Psychology Club and a local chapter of the national honor society in psychology, Psi Chi. Through active membership in these organizations, students are encouraged to become involved in community service and to attend and present their research at regional and national conferences.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Think critically to solve problems in psychological of analysis using academic sources of information. (Specialized Knowledge/Applied Learning)
2. Compare basic research methodology in psychology, including research design, data analysis and interpretation. (Critical Thinking/ Personal and Social Responsibility)
3. Communicate clearly in written and oral presentations in standard American Psychological Association format. (Communication Fluency)
4. Apply statistical concepts to decision making and problem solving in areas of psychological application.(Quantitative Fluency)
5. Think critically to solve problems in psychological areas of analysis using academic sources of information. (Critical Thinking)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 110	Mathematical Investigations-GTMA1	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [2]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

[1] Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.
[2] One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(6 semester hours, must earn a grade of "C" or higher in each course.)

Code	Title	Semester Credit Hours
Two consecutive classes in the same foreign language [1]		6
Total Semester Credit Hours		**6**

[1] FLAS 114 & FLAS 115 will not fulfill this requirement.

Program Specific Degree Requirements

(51 semester hours, must maintain a 2.0 cumulative GPA or higher in coursework in this area. Additionally, to continue in the program and eventually graduate as a psychology major, a student must earn, with no more than three attempts, at least a grade of "C" in each course.)

Code	Title	Semester Credit Hours
Core Courses		
Psychology Core		
PSYC 150	General Psychology-GTSS3	3
PSYC 201	Orientation to the Psychology Major	3
STAT 215	Statistics for Social and Behavioral Sciences	4
PSYC 216	Research Methods in Psychology	4
PSYC 414	History of Psychology	3
PSYC 416	Memory and Cognition	3
Counseling Core		
PSYC 320	Social Psychology	3
PSYC 340	Abnormal Psychology	3

PSYC 400	Psychological Testing	3
PSYC 420	Personality	3
PSYP 320	Career Development	3
PSYP 420	Counseling Processes and Techniques	3
PSYP 422	Psychological Interviewing	3
PSYP 424	Group Processes	3
PSYP 497	Practicum I	4
PSYC 370	Cross-Cultural Psychology	3
or PSYP 322	Multicultural Service Learning	
Total Semester Credit Hours		**51**

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours. 26 semester hours. At least 3 hours must be upper division.

Code	Title	Semester Credit Hours
Select electives (see recommended electives below)		26
Total Semester Credit Hours		**26**

Recommended Electives:

Code	Title	Semester Credit Hours
At least one course from each of the following three areas plus optional Practicum II		
Developmental Area		
PSYC 310	Child Psychology	
PSYC 330	Psychology of Adolescents and Emerging Adulthood	
PSYC 350	Psychology of Adulthood	
Neuropsychological Area		
PSYC 410	Drugs and Human Behavior	
PSYC 422	Sensation and Perception	
PSYC 430	Biopsychology	
Topical Area		
PSYC 300	Health Psychology	
PSYC 314	Psychology of Learning	
PSYC 335	Psychology of Women	
PSYC 345	Abnormal Child Psychology	
PSYC 396/496	Topics	
PSYC 401	Sport Psychology	
PSYC 408	Foundations of School Counseling	
PSYC 411	Human Sexuality	
PSYC 412	Industrial and Organizational Psychology	
PSYC 425	Forensic Psychology	
PSYC 435	Applied Social Psychology	
PSYP 305	Suicide Intervention Training	
PSYP 306	Applied Ethics in Mental Health and Counseling	
PSYP 410	Introduction to Marriage and Family Counseling	
SOCI 410	Death, Dying & Bereavement	
SOCI 497	Structured Research	
Optional Practicum II		
PSYP 499	Practicum II	

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
Essential Learning - Humanities		3
PSYC 150	General Psychology-GTSS3	3
Essential Learning - Natural Science		3
KINE 100	Health and Wellness	1
	Semester Credit Hours	**13**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
Essential Learning - History		3
MATH 110	Mathematical Investigations-GTMA1 (or higher)	3
Essential Learning - Fine Arts		3
KINA Activity		1
	Semester Credit Hours	**13**
Second Year		
Fall Semester		
PSYC 201	Orientation to the Psychology Major	3
Foundation Course - Foreign Language		3
Essential Learning - Social/Behavioral Science		3
Essential Learning - Social/Behavioral Science		3
STAT 215	Statistics for Social and Behavioral Sciences	4
	Semester Credit Hours	**16**
Spring Semester		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Essential Learning - Natural Science with Lab		4
Foundation Course - Foreign Language		3
PSYC 216	Research Methods in Psychology	4
General Elective		3
	Semester Credit Hours	**18**
Third Year		
Fall Semester		
PSYP 320	Career Development	3
PSYC 320	Social Psychology	3
General Electives		3
PSYC 370 or PSYP 322	Cross-Cultural Psychology or Multicultural Service Learning	3
PSYC 340	Abnormal Psychology	3
	Semester Credit Hours	**15**
Spring Semester		
General Electives (2 courses)		6
PSYP 420	Counseling Processes and Techniques	3
PSYC 416	Memory and Cognition	3
PSYC 414	History of Psychology	3
	Semester Credit Hours	**15**
Fourth Year		
Fall Semester		
PSYP 424	Group Processes	3
PSYC 400	Psychological Testing	3
General Electives (3 courses)		9
	Semester Credit Hours	**15**
Spring Semester		
PSYC 420	Personality	3
PSYP 422	Psychological Interviewing	3

PSYP 497	Practicum I	4
General Electives (2 courses)		5
	Semester Credit Hours	**15**
	Total Semester Credit Hours	**120**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Psychology (BA)

Degree: Bachelor of Arts
Major: Psychology
Program Code: 3726

Students may pursue the Psychology B.A. degree. All majors are required to complete some laboratory coursework in which they conduct psychological science research. The psychology programs provide students with a working knowledge of the methods and findings of modern psychology. Students majoring in psychology are prepared to work in a wide variety of settings, including human services (counseling and social work), public affairs, business, sales, criminal justice, and (following graduate study) psychotherapy, teaching and research. The psychology program provides a strong foundation for graduate study in psychology and related disciplines.

The psychology program sponsors a Psychology Club and a local chapter of the national honor society in psychology, Psi Chi. Through active membership in these organizations, students are encouraged to become involved in community service and to attend and present their research at regional and national conferences.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Critically analyze the historical trends in psychology. (Specialized Knowledge)
2. Compare basic research methodology in psychology, including research design, data analysis, and interpretation (Specialized Knowledge)
3. Communicate clearly in written and oral presentations in standard American Psychological Association format (APA) (Communication Fluency)
4. Apply statistical concepts to decision making and problem solving in areas of psychological application (Quantitative Fluency)
5. Think critically to solve problems in psychological areas of analysis using academic sources of information. (Critical Thinking and Information Literacy
6. Demonstrate ethical reasoning and social responsibility by evaluating psychological theories and practices, considering their impacts on diverse individuals and communities (Personal and Social Responsibility)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).

- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 110	Mathematical Investigations-GTMA1	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [2]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

[1] Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

[2] One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(12 semester hours. Must earn a grade of "C" or higher in each course.)

Code	Title	Semester Credit Hours
PSYC 150	General Psychology-GTSS3	3
PSYC 201	Orientation to the Psychology Major	3
Two consecutive classes in the same foreign language		6
Total Semester Credit Hours		**12**

Program Specific Degree Requirements

(47 semester hours, must maintain a 2.00 cumulative GPA or higher in coursework in this area. To continue in the program and eventually graduate as a psychology major a student must earn, with no more than three attempts, at least a grade of "C" in each course.)

Code	Title	Semester Credit Hours
Core Courses		
Psychology Core		
STAT 215	Statistics for Social and Behavioral Sciences	4
PSYC 216	Research Methods in Psychology	4
PSYC 414	History of Psychology	3
PSYC 416	Memory and Cognition	3
PSYC 430	Biopsychology	3
Psychology Electives		
Developmental Area		
Select one of the following:		3
PSYC 310	Child Psychology	
PSYC 330	Psychology of Adolescents and Emerging Adulthood	
PSYC 350	Psychology of Adulthood	
PSYC 408	Foundations of School Counseling	
Personality/Social Area		
Select one of the following:		3
PSYC 320	Social Psychology	

PSYC 401	Sport Psychology	
PSYC 412	Industrial and Organizational Psychology	
PSYC 420	Personality	
PSYC 435	Applied Social Psychology	
Diversity Area		
Select one of the following:		3
PSYC 323	Multicultural Service Learning	
PSYC 335	Psychology of Women	
PSYC 370	Cross-Cultural Psychology	
PSYC 411	Human Sexuality	
PSYC 425	Forensic Psychology	
Behavioral Neuroscience Area		
Select one of the following:		3
PSYC 314	Psychology of Learning	
PSYC 410	Drugs and Human Behavior	
PSYC 422	Sensation and Perception	
Clinical Mental Health Counseling Area		
Select one of the following:		3
PSYC 340	Abnormal Psychology	
PSYC 400	Psychological Testing	
PSYC 421	Counseling Processes and Techniques	
PSYC 423	Psychological Interviewing	
PSYC 424	Group Processes	
PSYC 440	Positive Psychology	
Select fifteen credits of additional psychology electives from any of the content areas above or from the following list:		15
PSYC 300	Health Psychology	
PSYC 306	Suicide Intervention Training	
PSYC 345	Abnormal Child Psychology	
PSYC 396/496	Topics	
SOCI 497	Structured Research	
PSYC 499	Internship	
Total Semester Credit Hours		**47**

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours. 24 semester hours. At least 1 hour must be upper division.

Code	Title	Semester Credit Hours
Select electives		24
Total Semester Credit Hours		**24**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
PSYC 150	General Psychology-GTSS3	3
Essential Learning - Humanities		3
Essential Learning - Social/Behavioral Science		3
Essential Learning - Natural Science with Lab		4
	Semester Credit Hours	**16**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
MATH 110	Mathematical Investigations-GTMA1 (or higher)	3
KINE 100	Health and Wellness	1
Essential Learning - History		3
Essential Learning - Natural Science		3
Essential Learning - Fine Arts		3
	Semester Credit Hours	**16**
Second Year		
Fall Semester		
PSYC 201	Orientation to the Psychology Major	3
STAT 215	Statistics for Social and Behavioral Sciences	4
Foundation Course - Foreign Language		3
Essential Learning - Social/Behavioral Science		3
KINA Activity		1
	Semester Credit Hours	**14**
Spring Semester		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
PSYC 216	Research Methods in Psychology	4
Foundation Course - Foreign Language		3
General Elective		3
	Semester Credit Hours	**14**
Third Year		
Fall Semester		
PSYC 416	Memory and Cognition	3
General Electives		6
Upper Division Psychology Electives (6 credits)		6
	Semester Credit Hours	**15**
Spring Semester		
Upper Division Psychology Electives (3 courses)		9
General Electives (2 courses)		6
	Semester Credit Hours	**15**
Fourth Year		
Fall Semester		
PSYC 430	Biopsychology	3
Upper Division Psychology Electives (3 courses)		9
General Electives (1 course)		3
	Semester Credit Hours	**15**
Spring Semester		
PSYC 414	History of Psychology	3
Upper Division Psychology Electives (2 courses)		6
General Electives (2 courses)		6
	Semester Credit Hours	**15**
	Total Semester Credit Hours	**120**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Forensic Investigation - Psychology (Minor)

Minor: Forensic Investigation - Psychology
Program Code: M716

This minor combines courses in psychology with forensic investigation courses. It provides a student a base in forensic psychology. Students may be better prepared to enter graduate programs in forensic psychology. Students may also be better prepared to use psychological concepts in criminal justice and investigative jobs.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(22 semester hours)

Code	Title	Semester Credit Hours
ANTH 270 & 270L	Death and Forensic Science and Death and Forensic Science Laboratory	3
ANTH 478	Professional Issues in Forensic Science	3
CRMJ 280 & 280L	Crime Scene Processing and Crime Scene Processing Laboratory	3
PSYC 202	APA Style of Writing for Psychology Minors	1
PSYC 425	Forensic Psychology	3
Select 9 semester hours of the following:		9
PSYC 340	Abnormal Psychology	
PSYC 400	Psychological Testing	
PSYC 410	Drugs and Human Behavior	
PSYP 422	Psychological Interviewing	
Total Semester Credit Hours		**22**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the "Intent to Graduate" form.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Psychology (Minor)

Minor: Psychology
Program Code: M740

A minor in Psychology requires the student to acquire working knowledge of the methods and findings of modern psychology. To earn the minor, a student must take the research methods course, along with several topical courses in psychology. A student with this minor will have a deeper understanding of the processes that shape behavior, which can then be applied to a wide variety of areas.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(22 semester hours)

Code	Title	Semester Credit Hours
PSYC 150	General Psychology-GTSS3	3
PSYC 202	APA Style of Writing for Psychology Minors	1
PSYC 416	Memory and Cognition	3
Developmental Area		
Select one of the following:		3
PSYC 310	Child Psychology	
PSYC 330	Psychology of Adolescents and Emerging Adulthood	
PSYC 350	Psychology of Adulthood	
Personality/Social Area		
Select one of the following:		3
PSYC 320	Social Psychology	
PSYC 370	Cross-Cultural Psychology	
PSYC 401	Sport Psychology	
PSYC 411	Human Sexuality	
PSYC 420	Personality	
PSYC 435	Applied Social Psychology	
PSYC 440	Positive Psychology	
Neuropsychology Area		
Select one of the following:		3
PSYC 410	Drugs and Human Behavior	
PSYC 422	Sensation and Perception	
PSYC 430	Biopsychology	
Select 6 semester hours of Upper Division PSYC - Psychology courses		6
Total Semester Credit Hours		**22**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should

follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the “Intent to Graduate” form.

If a student’s petition for graduation is denied, it will be their responsibility to consult the Registrar’s Office regarding next steps.

Radiologic Sciences

Program Descriptions

The Bachelor of Science in Radiologic Sciences (BSRS) program at Colorado Mesa University prepares individuals for certification and professional practice in the radiologic sciences. Radiologic technologists are an important part of the professional health care team, providing physicians with medical images that are vital for the diagnosis and treatment of injury, degeneration and disease. The BSRS program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT).

The four-year program provides educational experiences to prepare a professional radiologic technologist to practice in a variety of health care settings. After meeting the ethics, education and clinical competency requirements, graduates are eligible to take the certifying examination from the American Registry of Radiologic Technologists (ARRT). The program integrates theory, practice, and science with a broad liberal arts education. The program is designed to deliver quality education in both the classroom and clinical settings.

Professional Certificates in Radiologic Sciences

The Radiologic Sciences program offers certified radiologic technologists with an associate or baccalaureate degree the opportunity for post-primary certification in computed tomography and a professional certificate in diagnostic medical sonography. After meeting the ethics, structured education, and clinical competency requirements, graduates are eligible to take the appropriate certifying examination from the American Registry of Radiologic Technologists. This can lead to greater employment opportunities, increased compensation, and job security.

Special Requirements

Students applying for admission into the BSRS program must be admitted into the general University. Admission to Colorado Mesa University does not guarantee admission into the Radiologic Sciences program, which requires a separate application. Please contact the Health Sciences department for additional information.

Contact Information

Department of Health Sciences
Health Sciences 101
970.248.1398

Programs of Study Bachelors/Minors

- Radiologic Sciences (BSRS) (p. 725)

Certificates

- Computed Tomography (Professional Certificate) (p. 728)
- Diagnostic Medical Sonography (Professional Certificate) (p. 730)

Radiologic Sciences (BSRS)

Degree: Bachelor of Science in Radiologic Sciences
Major: Radiologic Sciences
Program Code: 3623

The Baccalaureate of Science in Radiologic Sciences (BSRS) Program is accredited based by the Joint Review Committee on Education in

Radiologic Technology (JRCERT). The four-year program provides educational experiences to prepare a professional radiologic technologist to practice in a variety of health care settings. The program integrates theory, practice, and science with a broad liberal arts education. Following successful completion of the Radiologic Sciences Program and after meeting ethics and examination requirements, the graduate is eligible to sit for the national certification examination administered by the American Registry of Radiologic Technologists. A passing score on this examination results in the granting of a certificate of registration that allows the privilege to use the title "Registered Technologist" and to use the abbreviation R.T. following the graduate's name.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Demonstrate written communication skills. \ (Communication fluency)
2. Assess oral communication techniques used in professional practice. (Communication fluency)
3. Relate ethical principles to real-life problems in the radiologic sciences. \ (Personal and Social Responsibility)
4. Combine academic theory with practitioner experience and skills. (Applied learning).
5. Reason and solve quantitative problems in the radiologic sciences. (Quantitative fluency)
6. Develop critical thinking and problem solving skills that demonstrate a professional level of expertise in the radiologic sciences. (Critical thinking).
7. Find relevant sources of information, evaluate information critically, and apply the information appropriately and effectively to professional practice in the radiologic sciences. (Information literacy)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 113	College Algebra-GTMA1 [2]	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences [3]		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [4]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab [5]		4
Total Semester Credit Hours		**31**

[1] Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

[2] This is a 4 credit course. 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.
[3] PSYC 150 and PSYC 233 are recommended.
[4] 7 semester hours, one course must include a lab.
[5] BIOL 101 and BIOL 101L are recommended.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

Foundation Courses

(15-16 semester hours, must earn a grade of "C" or higher in each course.)

Code	Title	Semester Credit Hours
BIOL 209 & 209L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Laboratory	4
BIOL 210 & 210L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Laboratory	4
BIOL 241	Pathophysiology	4
STAT 200 or STAT 215	Probability and Statistics-GTMA1 Statistics for Social and Behavioral Sciences	3-4
Total Semester Credit Hours		**15-16**

Program Specific Degree Requirements

(67 semester hours, must earn a grade of "C" or higher in each course.)

Code	Title	Semester Credit Hours
Core Courses		
RADS 320 & 320L	Introduction to Radiologic Technology and Patient Care and Introduction to Radiologic Technology and Patient Care Laboratory	4
RADS 321 & 321L	Radiographic Anatomy and Positioning I and Radiographic Anatomy and Positioning I Laboratory	3
RADS 322 & 322L	Principles of Radiographic Exposure and Principles of Radiographic Exposure Laboratory	3
RADS 323	Digital Imaging	2
RADS 331 & 331L	Radiographic Anatomy and Positioning II and Radiographic Anatomy and Positioning II Laboratory	3
RADS 332	Specialized Imaging	2
RADS 333 & 333L	Imaging Equipment and Quality Assurance and Imaging Equipment and Quality Assurance Laboratory	3
RADS 334	Image Analysis I	2
RADS 335	Radiation Biology and Protection	2
RADS 354	Image Analysis II	2
RADS 451	Imaging Pathology	3
RADS 452	Sectional Anatomy	3
RADS 453	Advanced Patient Care	3
RADS 461	Principles of Computed Tomography	2
RADS 462	Leadership and Management	3
RADS 463	Information Literacy in Radiologic Sciences	3
RADS 464	Senior Capstone	3
Clinical Courses		
RADS 329	Radiographic Clinical Experience I	1
RADS 339	Radiographic Clinical Experience II	4
RADS 449	Radiographic Clinical Experience III	6
RADS 459	Radiographic Clinical Experience IV	5
RADS 469	Radiographic Clinical Experience V	5
Total Semester Credit Hours		**67**

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours. 1 semester hours

Code	Title	Semester Credit Hours
MATH 113	College Algebra-GTMA1	1
Total Semester Credit Hours		**1**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
PSYC 150	General Psychology-GTSS3	3
KINE 100	Health and Wellness	1
Essential Learning - History		3
BIOL 101 & 101L	General Human Biology-GTSC1 and General Human Biology Laboratory-GTSC1	4
	Semester Credit Hours	**14**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
MATH 113	College Algebra-GTMA1	4
PSYC 233	Human Growth and Development-GTSS3	3
BIOL 209 & 209L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Laboratory	4
	Semester Credit Hours	**14**
Second Year		
Fall Semester		
Essential Learning - Fine Arts		3
Essential Learning - Humanities		3
Essential Learning - Natural Science		3

BIOL 210 & 210L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Laboratory	4
	Semester Credit Hours	**13**
Spring Semester		
BIOL 241	Pathophysiology	4
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
STAT 200 or STAT 215	Probability and Statistics-GTMA1 or Statistics for Social and Behavioral Sciences	3-4
KINA Activity		1
	Semester Credit Hours	**12-13**
Third Year		
Fall Semester		
RADS 320 & 320L	Introduction to Radiologic Technology and Patient Care and Introduction to Radiologic Technology and Patient Care Laboratory	4
RADS 321 & 321L	Radiographic Anatomy and Positioning I and Radiographic Anatomy and Positioning I Laboratory	3
RADS 322 & 322L	Principles of Radiographic Exposure and Principles of Radiographic Exposure Laboratory	3
RADS 323	Digital Imaging	2
RADS 329	Radiographic Clinical Experience I	1
	Semester Credit Hours	**13**
Spring Semester		
RADS 331 & 331L	Radiographic Anatomy and Positioning II and Radiographic Anatomy and Positioning II Laboratory	3
RADS 332	Specialized Imaging	2
RADS 333 & 333L	Imaging Equipment and Quality Assurance and Imaging Equipment and Quality Assurance Laboratory	3
RADS 334	Image Analysis I	2
RADS 335	Radiation Biology and Protection	2
RADS 339	Radiographic Clinical Experience II	4
	Semester Credit Hours	**16**
Summer Semester		
RADS 449	Radiographic Clinical Experience III	6
	Semester Credit Hours	**6**
Fourth Year		
Fall Semester		
RADS 354	Image Analysis II	2
RADS 451	Imaging Pathology	3
RADS 452	Sectional Anatomy	3
RADS 453	Advanced Patient Care	3
RADS 459	Radiographic Clinical Experience IV	5
	Semester Credit Hours	**16**
Spring Semester		
RADS 461	Principles of Computed Tomography	2
RADS 462	Leadership and Management	3
RADS 463	Information Literacy in Radiologic Sciences	3
RADS 464	Senior Capstone	3
RADS 469	Radiographic Clinical Experience V	5
	Semester Credit Hours	**16**
	Total Semester Credit Hours	**120-121**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Computed Tomography (Professional Certificate)

Award: Professional Certificate
Program of Study: Computed Tomography
Program Code: 1605

The Professional Certificate in Computed Tomography is designed to prepare certified and registered radiologic technologists for post-primary certification and registration with the American Registry of Radiologic Technologists (ARRT) in computed tomography. Students must be registered with the ARRT in radiography, nuclear medicine technology (NMTCB also accepted) or radiation therapy and hold the minimum of an associate degree. Coursework from the certificate can be applied to the Bachelor of Applied Science in Radiologic Sciences.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, critical thinking, and personal and social responsibility. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Combine academic theory with practitioner experience and skills (applied learning).
2. Develop critical thinking and problem solving skills that demonstrate a professional level of expertise in the radiologic sciences (critical thinking).

3. Promote value based behaviors for professional practice (critical thinking).

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU Professional Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Primarily 300-400 level courses.
- At least fifty percent of the credit hours must be taken at CMU.
- 2.00 cumulative GPA or higher in all CMU coursework.
- A grade lower than “C” in the program of study will not be counted toward meeting the certificate’s requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(16 semester hours, a grade of “C” or better is required in each course.)

Code	Title	Semester Credit Hours
RADS 452	Sectional Anatomy	3
RADS 461	Principles of Computed Tomography	2
RADS 471	Applied Computed Tomography	3
RADS 480	Clinical Specialization I	4
RADS 490	Clinical Specialization II	4
Total Semester Credit Hours		**16**

Suggested Course Plan

First Year		
Spring Semester		**Semester Credit Hours**
RADS 461	Principles of Computed Tomography	2
RADS 480	Clinical Specialization I	4
	Semester Credit Hours	**6**
Fall Semester		
RADS 452	Sectional Anatomy	3
RADS 471	Applied Computed Tomography	3
RADS 490	Clinical Specialization II	4
	Semester Credit Hours	**10**
	Total Semester Credit Hours	**16**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student’s responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar’s Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar’s Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the “Intent to Graduate” form to the Registrar’s Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's “Intent to Graduate” does not automatically move to a later graduation date.

Diagnostic Medical Sonography (Professional Certificate)

Overview

Award: Professional Certificate
Program of Study: Diagnostic Medical Sonography
Program Code: 1610

This program has been approved by CMU and has been submitted to the accreditor. This program is pending HLC review and approval.

The Professional Certificate in Diagnostic Medical Sonography is designed to prepare certified healthcare professionals for an advanced diagnostic imaging specialization.

All CMU certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, critical thinking, and personal and social responsibility. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Combine academic theory with professional experience and technical skills in diagnostic medical sonography. (Specialized Knowledge/ Applied Learning)
2. Develop critical thinking skills to analyze clinical scenarios and make informed decisions for optimal outcomes. (Critical Thinking)
3. Apply ethical principles to address real-world challenges in professional practice. (Personal and Social Responsibility)

Requirements

The following institutional requirements apply to all CMU Professional Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Primarily 300-400 level courses.
- At least fifty percent of the credit hours must be taken at CMU.
- 2.00 cumulative GPA or higher in all CMU coursework.
- A grade lower than “C” in the program of study will not be counted toward meeting the certificate’s requirements.
- A course may only be used to fulfill one requirement for each degree/ certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU Professional Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Primarily 300-400 level courses.
- At least fifty percent of the credit hours must be taken at CMU.
- 2.00 cumulative GPA or higher in all CMU coursework.
- A grade lower than “C” in the program of study will not be counted toward meeting the certificate’s requirements.
- A course may only be used to fulfill one requirement for each degree/ certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

45 semester hours. A grade of "C" or higher is required in each course.

Code	Title	Semester Credit Hours
DMSO 400L	Introduction to Cardiac Sonography Laboratory	1
DMSO 409	Sonography Clinical Experience I	11
DMSO 410	Sonography Principles and Instrumentation I	2
DMSO 411	Cardiac Sonography Procedures I	2
DMSO 419	Sonography Clinical Experience II	2
DMSO 420	Sonography Principles and Instrumentation II	1
DMSO 421	Cardiac Sonography Procedures II	3
DMSO 429	Sonography Clinical Experience III	12
DMSO 430	Sonography Registry Review	2
DMSO 439	Sonography Clinical Experience IV	9
Total Semester Credit Hours		**45**

Suggested Course Plan

First Year		
Summer Semester		**Semester Credit Hours**
DMSO 400L	Introduction to Cardiac Sonography Laboratory	1
	Semester Credit Hours	**1**
Fall Semester		
DMSO 409	Sonography Clinical Experience I	11
DMSO 410	Sonography Principles and Instrumentation I	2
DMSO 411	Cardiac Sonography Procedures I	2
	Semester Credit Hours	**15**
Spring Semester J-Term		
DMSO 419	Sonography Clinical Experience II	2
	Semester Credit Hours	**2**
Spring Semester		
DMSO 420	Sonography Principles and Instrumentation II	1
DMSO 421	Cardiac Sonography Procedures II	3

DMSO 429	Sonography Clinical Experience III	12
	Semester Credit Hours	**16**
Second Year		
Summer Semester		
DMSO 430	Sonography Registry Review	2
DMSO 439	Sonography Clinical Experience IV	9
	Semester Credit Hours	**11**
	Total Semester Credit Hours	**45**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Real Estate

The certificate in Real Estate is designed to prepare students to learn more about many aspects of the real estate industry. The three-course sequence, which can be taken in any order, includes topics such as a general real estate industry overview, real estate financing, and real estate development. This certificate is aimed at students in all areas of study to supplement their coursework and increase their understanding of the real estate industry, which will help in many facets of students' personal and professional lives.

Contact Information

Davis School of Business
Dominguez Hall 301
970.248.1778

Programs of Study

Certificates

- Real Estate (Professional Certificate) (p. 731)

Real Estate (Professional Certificate)

Award: Professional Certificate
Major: Real Estate
Program Code: 1700

The Certificate in Real Estate offers students invaluable knowledge of the Real Estate Industry, knowledge that can be used both personally and professionally. With over 5 million people currently employed in the real estate industry, this certificate provides opportunities in many differing real estate careers. Students will be provided opportunities to learn all aspects of the industry to include: appraisal and assessment, property management, commercial and residential investment opportunities and management, real estate law, and real estate financing. Students will also learn the tools needed to analyze and evaluate both personal and professional potential real estate investment opportunities. This certificate is not intended to lead to real estate licensure.

For more information on what you can do with this major visit Career Services' What to Do with a Major? resource.

All CMU certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, critical thinking, and personal and social responsibility. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Produce industry appropriate written documentation with the ability to effectively orally communicate real estate information. (Communication Fluency)
2. Construct, apply, and document appropriate financial methodologies to evaluate potential real estate investment opportunities. (Quantitative Fluency)
3. Apply and analyze appropriate investment strategies to evaluate potential real estate investment opportunities. (Critical Thinking)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU Professional Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Primarily 300-400 level courses.
- At least fifty percent of the credit hours must be taken at CMU.
- 2.00 cumulative GPA or higher in all CMU coursework.
- A grade lower than "C" in the program of study will not be counted toward meeting the certificate's requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(9 semester hours)

Code	Title	Semester Credit Hours
REAL 350	Real Estate Fundamentals	3
REAL 410	Real Estate Finance and Development	3
REAL 415	Real Estate Valuation and Investment	3
Total Semester Credit Hours		**9**

Suggested Course Plan

Third Year		
Fall Semester		**Semester Credit Hours**
REAL 350	Real Estate Fundamentals	3
	Semester Credit Hours	**3**
Spring Semester		
REAL 410	Real Estate Finance and Development	3
	Semester Credit Hours	**3**
Fourth Year		
Fall Semester		
REAL 415	Real Estate Valuation and Investment	3
	Semester Credit Hours	**3**
	Total Semester Credit Hours	**9**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Respiratory Therapy

Program Description

This program, which is offered at the main campus, allows students to achieve an Associate of Applied Science in Respiratory Therapy degree, opening greater employment opportunities in health care. The Associate of Applied Science in Respiratory Therapy program exposes the student to oral and written communication skills, social/behavior sciences, and biomedical/natural sciences, as well as respiratory care. The Associate of Applied Science in Respiratory Therapy exposes the students to a variety of settings, such as inpatient, outpatient, and home care, as well as different patient populations.

This program has selective admission requirements. It is the student's responsibility to obtain the current admission requirements.

Important information for this program:

The following prerequisites must be successfully completed, along with admission into the program before a student will be granted admission into the respiratory therapy program. Must earn a grade of "C" or better in each course:

- BIOL 209/BIOL 209L
- BIOL 250/BIOL 250L
- CHEM 131/CHEM 131L
- ENGL 111
- ENGL 112 or SPCH 101 or SPCH 102
- MATH 113
- KINA Activity Class
- KINE 100
- PSYC 150 or PSYC 233

Additional admission requirements also apply. Please visit the Department of Health Sciences' website for a complete list of admission requirements and program information.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Exemplify proficiency as a respiratory care practitioner, as outlined by the National Board of Respiratory Care (NBRC) and the Commission on Accreditation for Respiratory Care (CoARC) (Specialized Knowledge/Applied Learning).
2. Aid in the diagnosis, management, and treatment of cardiopulmonary patients (Critical Thinking).
3. Apply and evaluate information pertinent to the respiratory care practitioner role (Quantitative Fluency).
4. Exhibit technical competency in skills researched and utilized as a respiratory care practitioner (Information Literacy).
5. Display professionalism, as well as, culture, ethnic, and individual diversity as expected of a respiratory care practitioner (Personal Social Responsibility).
6. Describe and discuss alternative care sites (Communication Fluency).

Contact Information

Department of Health Sciences
Health Sciences 101
970.248.1398

Programs of Study

Associates

- Respiratory Therapy (AAS) (p. 733)

Respiratory Therapy (AAS)

Degree: Associate of Applied Science
Major: Respiratory Therapy
Program Code: 1661

This program, which is offered at the main campus, allows students to achieve an Associate of Applied Science in Respiratory Therapy degree, opening greater employment opportunities in health care. The Associate of Applied Science in Respiratory Therapy program exposes the student to oral and written communication skills, social/behavior sciences, and biomedical/natural sciences, as well as respiratory care. The Associate of Applied Science in Respiratory Therapy exposes the students to a variety of settings, such as inpatient, outpatient, and home care, as well as different patient populations.

This program has selective admission requirements. It is the student's responsibility to obtain the current admission requirements.

Important information for this program:

The following prerequisites must be successfully completed, along with admission into the program before a student will be granted admission into the respiratory therapy program. Must earn a grade of "C" or better in each course:

- BIOL 209/BIOL 209L
- BIOL 250/BIOL 250L
- CHEM 131/CHEM 131L
- ENGL 111
- ENGL 112 or SPCH 101 or SPCH 102
- MATH 113
- KINA Activity Class
- KINE 100
- PSYC 150 or PSYC 233

Additional admission requirements also apply. Please visit the Department of Health Sciences' website for a complete list of admission requirements and program information.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Exemplify proficiency as a respiratory care practitioner, as outlined by the National Board of Respiratory Care (NBRC) and the Commission

on Accreditation for Respiratory Care (CoARC) (Specialized Knowledge/Applied Learning).
2. Aid in the diagnosis, management, and treatment of cardiopulmonary patients (Critical Thinking).
3. Apply and evaluate information pertinent to the respiratory care practitioner role (Quantitative Fluency).
4. Exhibit technical competency in skills researched and utilized as a respiratory care practitioner (Information Literacy).
5. Display professionalism, as well as, culture, ethnic, and individual diversity as expected of a respiratory care practitioner (Personal Social Responsibility).
6. Describe and discuss alternative care sites (Communication Fluency).

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Specific to this degree:

- 73 semester hours required for the AAS in Respiratory Therapy.
- Must have a "C" or better in all courses.

Essential Learning Requirements

(All courses must be passed with a "C" or better for each course in this degree.)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
Communication		
ENGL 111	English Composition I-GTCO1	3
Choose one of the following:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communication	
SPCH 102	Speechmaking	
Mathematics		
MATH 113	College Algebra-GTMA1	4
Other Essential Learning Core Courses		
PSYC 233	Human Growth and Development-GTSS3	3
or PSYC 150	General Psychology-GTSS3	
BIOL 250 & 250L	Introduction to Microbiology-GTSC1 and Introduction to Microbiology Laboratory-GTSC1	4
Total Semester Credit Hours		**17**

Other Lower Division Requirements

(2 semester hours, must earn a grade of "C" or better in each course.)

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Total Semester Credit Hours		**2**

Program Specific Degree Requirements

(54 semester hours, must earn a grade of "C" or better in each course.)

Code	Title	Semester Credit Hours
Prerequisite courses (must be completed with a grade of "C" or better before admission to the program):		
BIOL 209 & 209L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Laboratory	4
CHEM 131 & 131L	General Chemistry I-GTSC1 and General Chemistry Laboratory I-GTSC1	5
RESP Program-Specific Courses:		

RESP 201	Introduction to Respiratory Care	2
RESP 202	Cardiopulmonary Anatomy and Physiology	3
RESP 203 & 203L	Respiratory Procedures I and Respiratory Procedures I Laboratory	4
RESP 204	Respiratory Pharmacology	3
RESP 205	Cardiopulmonary Pathophysiology	3
RESP 206	Cardiopulmonary Diagnostics	2
RESP 207	Noninvasive Care Management	2
RESP 208 & 208L	Respiratory Procedures II and Respiratory Procedures II Laboratory	3
RESP 209	Respiratory Clinical I	2
RESP 211 & 211L	Mechanical Ventilation and Mechanical Ventilation Laboratory	4
RESP 213	Fundamentals of Pediatric and Neonatal Care	2
RESP 214	Professional Development for Respiratory Care Practitioners	2
RESP 219	Respiratory Clinical II	5
RESP 229	Respiratory Clinical III	8
Total Semester Credit Hours		**54**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
BIOL 209 & 209L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Laboratory	4
ENGL 111	English Composition I-GTCO1	3
MATH 113	College Algebra-GTMA1	4
PSYC 150 or PSYC 233	General Psychology-GTSS3 or Human Growth and Development-GTSS3	3
	Semester Credit Hours	**14**
Spring Semester		
BIOL 250 & 250L	Introduction to Microbiology-GTSC1 and Introduction to Microbiology Laboratory-GTSC1	4
CHEM 131 & 131L	General Chemistry I-GTSC1 and General Chemistry Laboratory I-GTSC1	5
KINE 100	Health and Wellness	1
KINA Activity Course		1
Select one of the following:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communication	
SPCH 102	Speechmaking	
	Semester Credit Hours	**14**
Second Year		
Fall Semester		
RESP 201	Introduction to Respiratory Care	2
RESP 202	Cardiopulmonary Anatomy and Physiology	3
RESP 203 & 203L	Respiratory Procedures I and Respiratory Procedures I Laboratory	4
RESP 204	Respiratory Pharmacology	3
	Semester Credit Hours	**12**
Spring Semester		
RESP 205	Cardiopulmonary Pathophysiology	3
RESP 206	Cardiopulmonary Diagnostics	2
RESP 207	Noninvasive Care Management	2
RESP 208 & 208L	Respiratory Procedures II and Respiratory Procedures II Laboratory	3
RESP 209	Respiratory Clinical I	2
	Semester Credit Hours	**12**
Summer Semester		
RESP 211 & 211L	Mechanical Ventilation and Mechanical Ventilation Laboratory	4
RESP 219	Respiratory Clinical II	5
	Semester Credit Hours	**9**
Third Year		
Fall Semester		
RESP 213	Fundamentals of Pediatric and Neonatal Care	2
RESP 214	Professional Development for Respiratory Care Practitioners	2
RESP 229	Respiratory Clinical III	8
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**73**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Social Science

Program Description

The Associate of Arts (AA) degree is designed for students who intend to continue their education and obtain a baccalaureate degree. The AA with an emphasis in social science is the appropriate choice for students who will take upper-division coursework in the arts, humanities, or social and behavioral sciences. The degree program includes the Colorado Statewide General Education Core and meets the lower division general education requirements at institutions in Colorado. The social science emphasis provides students with the opportunity to develop a broad understanding of the various disciplines that traditionally constitute the social sciences: anthropology, geography, history, political science, sociology, and psychology.

Contact Information

Department of Social and Behavioral Sciences
Houston Hall
970.248.1696

Programs of Study

Associates

- Social Science, Liberal Arts (AA) (p. 736)

Graduate

This graduate certificate is inactive and is not currently accepting new students.

- Social Science (Graduate Certificate) (p. 401)

Social Science, Liberal Arts (AA)

Degree: Associate of Arts
Major: Liberal Arts
Emphasis: Social Science
Program Code: 2710

The Associate of Arts (AA) degree is designed for students who intend to continue their education and obtain a baccalaureate degree. The AA is the appropriate choice for students who will take upper division coursework in the arts, humanities, or social and behavioral sciences. The degree program includes the Colorado Statewide General Education Core and meets the lower division general education requirements at most public institutions in Colorado.

The Social Science emphasis within the Liberal Arts major provides students with the opportunity to develop a broad understanding of the various disciplines which traditionally constitute the Social Sciences: Anthropology, History, Political Science, Sociology, Psychology, Economics, and Geography.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Analyze social science problems (Specialized Knowledge).
2. Communicate clearly in writing or oral presentations (Communication Fluency).
3. Think critically to solve problems in social science (Critical Thinking).
4. Use program level mathematical concepts to understand, analyze, and explain social science issues (Quantitative Fluency).

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU or CMU Tech Associate of Arts (AA) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours total.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade of "C" or higher must be earned in all Essential Learning courses in order to be accepted for transfer under the Colorado Core Transfer Consortium General Education curriculum or gtPathways, Colorado's guaranteed transfer program.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 15 semester credit hours for an AA degree. A maximum of 6 of the 15 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 110	Mathematical Investigations-GTMA1	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [2]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

[1] Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

[2] One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Total Semester Credit Hours		**2**

Program Specific Degree Requirements

(18 semester hours, must maintain a 2.00 cumulative GPA or higher in coursework in this area.)

Code	Title	Semester Credit Hours
Minimum 18 semester hours chosen from one or more of the following areas: [1]		18
Anthropology		
Archeology		
Economics		
History		
Geography		
Political Science		
Psychology		
Criminal Justice		
Social Science		
Sociology		
Total Semester Credit Hours		**18**

[1] No double counting is allowed between Essential Learning and major requirements.

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 60 hours. 9 semester hours.

Code	Title	Semester Credit Hours
Select electives		9
Total Semester Credit Hours		**9**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
Essential Learning - History		3
Essential Learning - Humanities		3
Essential Learning - Natural Science with lab		4
Social/Behavioral Science Emphasis Requirement		3
KINE 100	Health and Wellness	1
	Semester Credit Hours	**17**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
Essential Learning - Fine Arts		3
Essential Learning - Mathematics		3
Social/Behavioral Science Emphasis Requirement		3
General Elective		3
Wellness Requirement – KINA Activity Course		1
	Semester Credit Hours	**16**
Second Year		
Fall Semester		
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - Natural Science without lab		3
Social/Behavioral Science Emphasis Requirement		3
Social/Behavioral Science Emphasis Requirement		3
General Elective		3
	Semester Credit Hours	**15**
Spring Semester		
Essential Learning - Social and Behavioral Sciences		3
Social/Behavioral Science Emphasis Requirement		3
Social/Behavioral Science Emphasis Requirement		3
General Elective		3
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**60**

Students that intend to continue with Colorado Mesa University should take ESSL 290 and ESSL 200 during the final semester of their Associate of Arts work.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for her/his intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Social Work

Program Description

The Bachelor of Social Work (BSW) program at Colorado Mesa University prepares students for ethical, competent, and compassionate generalist practice with individuals, families, groups, organizations, and communities. The BSW program is grounded in a commitment to social, economic, and environmental justice, and emphasizes anti-oppressive and anti-racist practice as essential to addressing systemic inequities as well as promoting human rights.

The practice of social work requires knowledge of human development and behavior; of social, economic, and cultural institutions, and of the interaction of all these factors as well as skills in developing relationships, assessing needs and services while facilitating change. Social workers seek to strengthen relationships among people to promote, restore, maintain, and enhance the well-being of individuals, families, social groups, organizations, and communities.

Students majoring in social work must apply to get into the social work program before taking any of the social work core courses. New cohorts of up to 25 students are admitted every spring semester for the subsequent fall semester. Once admitted, students will enroll in the major courses in a sequential format over 4 semesters to complete the requirements of the BSW major.

Application requirements include:

1. 60 credit hours completed in Essential Learning Requirements, Lower Division Requirements, and Foundation Courses
2. Completion or in progress of completing SOWK 150 and SOWK 210
3. Completion or in progress of completing PSYC 150, PSYC 233, and POLS 236
4. A formal application
5. A personal statement essay
6. An interview with faculty

Further application instructions are available on the BSW website. Students can reach out to BSW Program Director by email with any questions about admission to the program.

To graduate with a major in social work, a student must earn, with no more than two attempts, at least a grade of "C" in each course and maintain a 2.50 cumulative GPA or higher in coursework in this area. Students who graduate from a CSWE-accredited BSW program are eligible for Advanced Standing in a majority of Master of Social Work programs in the United States and Canada.

For more information on what you can do with this major, visit Career Services' *What to Do with a Major?* resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Demonstrate proficiency in utilizing the social work profession's 9 core competencies and 20 practice behaviors through a senior-year practicum in a social service agency in our community (Specialized Knowledge/Applied Learning).

2. Demonstrate the ability to use practice-informed research and practice the use of the scientific method to develop research-informed practice in academic assignments and at practicum (Quantitative Fluency).
3. Demonstrate effective oral and written communication in working with individuals, families, groups, organizations, communities, and colleagues through practicum, required classes, and oral presentations (Communication Fluency).
4. Demonstrate critical thinking to inform and communicate professional judgments through distinguishing, appraising, and integrating multiple sources of knowledge; and through analyzing models of assessment, prevention, intervention, and evaluation (Critical Thinking),
5. Engage with anti-racism, diversity, equity and inclusion (ADEI) in social work classes and practicum; Demonstrate ethical and professional behavior in classes, with peers, and in practicum by adhering to the NASW Code of Ethics (Personal and Social responsibility).
6. Demonstrate effective skills in evaluating information and applying the information to specific purposes; demonstrate ethical use of social media and technology in the classroom, in assignments, and in practicum (Information literacy).

Contact Information

Department of Social and Behavioral Sciences
Houston Hall
970.248.1696

Programs of Study Bachelors/Minors

- Social Work (BSW) (p. 745)
- Social Work (Minor) (p. 748)

Graduate

- Social Work: Advanced Standing (MSW) (p. 739)
- Social Work: Foundation (MSW) (p. 742)

Social Work: Advanced Standing (MSW)

Overview

Degree: Master of Social Work
Program of Study: Social Work: Advanced Standing
Program Code: 8703

The MSW program has HLC approval and is in the CSWE accreditation process.

“The purpose of the social work profession is to promote human and community well-being. Guided by a person-in-environment framework, a global perspective, respect for human diversity, and knowledge based on scientific inquiry, the purpose of social work is actualized through its quest for social, racial, economic, and environmental justice, the creation of conditions that facilitate the realization of human rights, the elimination of poverty, and the enhancement of life for all persons, locally and globally. To fully realize our commitment to social justice, social workers must engage in anti-racist, culturally responsive social work practice at the individual, family, group, organizational, community, research, and policy levels, informed by the theories and voices of those who have been marginalized. In an ever-shifting social and environmental context, social work is agile, responsive, and generative.

Social work education at the baccalaureate, master’s, and doctoral levels shapes the profession’s future through the education of competent professionals, the generation of knowledge, the promotion of evidence-informed practice through scientific inquiry, and the exercise of leadership. Social work education prepares competent policy practitioners to develop socially responsible policy, address the policy implications of their work, and implement strategies that result in a more engaged public and better educated policymakers to address inequalities and inequities.

Social workers share a commitment to promoting social welfare, helping people of all backgrounds overcome their unique challenges, advocating for social and economic justice for all members of the community, and embodying a professional code of ethics” (CSWE, 2022).

Professional social workers are found in a wide variety of settings including schools, hospitals, mental health clinics, senior centers, elected office, private practices, prisons, military, corporations, and in numerous public and private agencies that serve individuals and families in need. They often specialize in one or more of the following practice areas:

- Psychiatric Social Work (mental health centers, medical hospitals, psychiatric hospitals)
- Child welfare (abuse and neglect; adoption, foster care)
- Alcohol and drug abuse, addictions, substance abuse treatment centers
- Medical Social Work (inpatient and outpatient hospitals, health clinics, specialty clinics)
- School Social Work (public or private schools K-12)
- Geriatric facilities (nursing homes, home health, Alzheimer’s units)
- Military & Veterans services (United States & International)
- Hospice & Palliative Care (end of life care)
- International Social Work (United Nations, WHO - global social work; economic stress; liberation, community organizing)
- Forensic Social Work (jails, prisons, courts, public defenders, district attorney, alternative defense, specialty courts)
- Clinical - Private Practice (therapist, mental health, addictions, family, divorce)
- Trauma and Violence (combat, sexual violence, human trafficking, refugee, natural disaster)
- Police Department (co-responder, crisis intervention, therapist)
- Community Organizing

Important Information about this program:

- The MSW program has two tracks: Foundation and Advanced Standing.

- MSW Foundation Program is open to all students who have completed a bachelor's degree from an accredited university. This is a two-year program that requires 74 credits with 1050 hours of practicum/internship training.
- MSW Advanced Standing is open to all students who have completed a Bachelor of Social Work degree from a CSWE accredited university within the last five years. This is a one-year program and requires 44 credits with 600 hours of internship training.
- The MSW is a degree that allows for licensure in all 50 states.
- MSW Program Acceptance required prior to enrollment. Please see the program website for specific admission requirements.

All CMU masters-level graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, information literacy, and ethical reasoning. In addition to these campus-wide student learning outcomes, a graduate of this program will be able to:

1. Demonstrate Ethical and Professional Behavior\ \ Demonstrate ethical decisions making by applying the standards of the NASW Code of Ethics, relevant laws and regulations, models for ethical decision-making, ethical conduct of research, and additional codes of ethics as appropriate to the context; demonstrate professional demeanor in behavior; appearance; and oral, written, and electronic communication; manage personal and professional value conflicts and affective reactions; use technology ethically and appropriately to facilitate practice outcomes; and use supervision and consultation to guide professional judgment and behavior. (Applied Learning, Communication Fluency, Critical Thinking, Ethical Reasoning)\
2. Engage in Anti-Racism, Diversity, Equity, and Inclusion in Practice \ \ Demonstrate anti-racist social work practice at the individual, family, group, organizational, community, research, and policy levels, informed by the theories and voices of those who have been marginalized; demonstrate cultural humility applying critical reflexivity, self-awareness, and self-regulation to manage the influence of bias, power, privilege, and values in working with clients and constituencies acknowledging them as experts of their own lived experiences. (Specialized Knowledge/Applied Learning, Communication Fluency, Critical Thinking, Information Literacy, Ethical Reasoning)\
3. Advance Human Rights and Social, Racial, Economic, and Environmental Justice\ \ Advocate for human rights at the individual and system levels; and \ engage in practices that advance social, racial, economic, and environmental justice for equal justice and the dismantling of structural racism and oppression. (Specialized Knowledge/Applied Learning, Communication Fluency, Critical Thinking, Information Literacy, Ethical Reasoning)\ \
4. Engage in Practice Informed Research and Research informed Practice\ \ Apply research findings to inform and improve practice, policy, and programs; and identify strategies for use of quantitative and qualitative methods of research to advance the purposes of social work. (Quantitative Fluency, Critical Thinking, Information Literacy)\ \
5. Engage in Policy Practice\ \ Assess how social welfare policies affect the delivery of and access to social services; and apply critical thinking to analyze, formulate, and advocate for policies that advance human rights and social, racial, economic, and environmental justice. (Applied Learning, Communication Fluency, Critical Thinking, Ethical Reasoning\
6. Engage with Individuals, Families, Groups, Organizations, and Communities\ \ Apply knowledge of human behavior and person-in-environment, and other multidisciplinary theoretical frameworks to engage with clients and constituencies; and use empathy, reflection, and interpersonal skills to effectively engage diverse clients and constituencies. (Applied Learning, Communication Fluency, Critical Thinking, Information Literacy)\
7. Assess with Individuals, Families, Groups, Organizations, and Communities\ \ Apply knowledge of human behavior and person-in-environment and other culturally responsive multidisciplinary theoretical frameworks when assessing clients and constituencies; and demonstrate respect for client self-determination during the assessment process collaborating with clients and constituencies in developing mutually agreed-on goals. (Specialized Knowledge, Applied Learning, Communication Fluency, Critical Thinking, Ethical Reasoning)\ \
8. Intervene with Individuals, Families, Groups, Organizations, and Communities\ \ Engage with clients and constituencies to critically choose and implement culturally responsive, evidenced-based interventions to achieve mutually agreed-on practice goals and enhance capacities of clients and constituencies; and incorporate culturally responsive methods to negotiate, mediate, and advocate, with and on behalf of clients and constituencies. (Specialized Knowledge, Applied Learning, Communication Fluency, Critical Thinking, ethical Reasoning)\
9. Evaluate with Individuals, Families, Groups, Organizations, and Communities\ \ Select and use appropriate methods for evaluation of outcomes; and critically analyze outcomes and apply evaluation findings to improve practice effectiveness with individuals, families, groups, organizations, and communities. (Specialized Knowledge, Applied Learning, Quantitative Fluency, Communication Fluency, Critical Thinking, Ethical Reasoning)\

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional requirements apply to all CMU graduate-level degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Graduate certificates consist of a minimum of 5 credit hours. Master's degrees consist of a minimum of 30 credit hours. Doctoral degrees consist of a minimum of 60 credit hours.
- All credits in a graduate program must be minimally at the 500-level.
- At least fifty percent of the credit hours must be taken at CMU.
- Students must achieve a 3.00 cumulative GPA or higher in all CMU coursework.
- Students may not apply coursework with a grade lower than a "B" toward graduation requirements.

- A course may only be used to fulfill one requirement for each degree/certificate.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Graduate Degree Requirements (p. 87)" in this catalog for a complete list of graduation requirements.
- All policies for graduate degrees are outlined in the Graduate Policies and Procedures Manual, Capstone Guidelines Manual, and Thesis and Dissertation Guidelines Manual, all of which are provided on the Graduate Studies website.

Specific to this degree:

- MSW program acceptance required prior to enrollment. See the program website for specific admissions requirements.
- MSW in Social Work: Advanced Standing program is open only to graduates with a bachelor of social work degrees from a CSWE accredited program. The bachelor of social work degree completion must be within five years to apply for this program. This program requires a completion of 44 credits hours and 600 hours of internship. This is a one year program.
- Students must successfully pass all didactic and field education requirements.
- All courses and course sequencing are required and must be completed at CMU or through applicable transfer credit.

Program Specific Requirements

44 Semester Hours required for the degree.

Code	Title	Semester Credit Hours
SOWK 521	Advanced Ethical, Legal, and Professional Issues in Social Work Practice	3
SOWK 522	Clinical Supervision and Leadership in Social Work Practice	3
SOWK 523	Advanced Social Work Practice with Individuals and Families	3
SOWK 524	Advanced Social Work Practice with Groups, Organizations, and Communities	3
SOWK 525	Social Work Research and Program Evaluation	3
SOWK 526	Advanced Psychopathology for Social Work Practice	3
SOWK 594C	Field Education: Advanced Seminar I	1
SOWK 594D	Field Education: Advanced Seminar II	1
SOWK 599A	Field Education: Social Work Internship I	6
SOWK 599B	Field Education: Social Work Internship II	6
Choose 4 courses from the following:		12
SOWK 551	Trauma Informed Practice	
SOWK 552	Restorative Justice and Social Work	
SOWK 553	Substance Abuse: Assessment, Interventions, and Treatment	
SOWK 554	Crisis Intervention and Social Work	
SOWK 555	Global Relations and International Social Work	
SOWK 596	Topics	
Total Semester Credit Hours		**44**

Suggested Course Plan

First Year

Summer Semester		**Semester Credit Hours**
Choose 4 courses from the following:		12
SOWK 551	Trauma Informed Practice	
SOWK 552	Restorative Justice and Social Work	
SOWK 553	Substance Abuse: Assessment, Interventions, and Treatment	
SOWK 554	Crisis Intervention and Social Work	
SOWK 555	Global Relations and International Social Work	
SOWK 596	Topics	
	Semester Credit Hours	**12**
Fall Semester		
SOWK 523	Advanced Social Work Practice with Individuals and Families	3
SOWK 524	Advanced Social Work Practice with Groups, Organizations, and Communities	3
SOWK 526	Advanced Psychopathology for Social Work Practice	3
SOWK 594C	Field Education: Advanced Seminar I	1
SOWK 599A	Field Education: Social Work Internship I	6
	Semester Credit Hours	**16**
Spring Semester		
SOWK 521	Advanced Ethical, Legal, and Professional Issues in Social Work Practice	3
SOWK 522	Clinical Supervision and Leadership in Social Work Practice	3
SOWK 525	Social Work Research and Program Evaluation	3
SOWK 594D	Field Education: Advanced Seminar II	1
SOWK 599B	Field Education: Social Work Internship II	6
	Semester Credit Hours	**16**
	Total Semester Credit Hours	**44**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Social Work: Foundation (MSW)

Overview

Degree: Master of Social Work
Program of Study: Social Work: Foundation
Program Code: 8702

The MSW program has HLC approval and is in the CSWE accreditation process.

"The purpose of the social work profession is to promote human and community well-being. Guided by a person-in-environment framework, a global perspective, respect for human diversity, and knowledge based on scientific inquiry, the purpose of social work is actualized through its quest for social, racial, economic, and environmental justice, the creation of conditions that facilitate the realization of human rights, the elimination of poverty, and the enhancement of life for all persons, locally and globally. To fully realize our commitment to social justice, social workers must engage in anti-racist, culturally responsive social work practice at the individual, family, group, organizational, community, research, and policy levels, informed by the theories and voices of those who have been marginalized. In an ever-shifting social and environmental context, social work is agile, responsive, and generative.

Social work education at the baccalaureate, master's, and doctoral levels shapes the profession's future through the education of competent professionals, the generation of knowledge, the promotion of evidence-informed practice through scientific inquiry, and the exercise of leadership. Social work education prepares competent policy practitioners to develop socially responsible policy, address the policy implications of their work, and implement strategies that result in a more engaged public and better-educated policymakers to address inequalities and inequities.

Social workers share a commitment to promoting social welfare, helping people of all backgrounds overcome their unique challenges, advocating for social and economic justice for all members of the community, and embodying a professional code of ethics" (CSWE, 2022).

Professional social workers are found in a wide variety of settings including schools, hospitals, mental health clinics, senior centers, elected office, private practices, prisons, military, corporations, and in numerous public and private agencies that serve individuals and families in need. They often specialize in one or more of the following practice areas:

- Psychiatric Social Work (mental health centers, medical hospitals, psychiatric hospitals)
- Child welfare (abuse and neglect; adoption, foster care)
- Alcohol and drug abuse, addictions, substance abuse treatment centers
- Medical Social Work (inpatient and outpatient hospitals, health clinics, specialty clinics)
- School Social Work (public or private schools K-12)
- Geriatric facilities (nursing homes, home health, Alzheimer's units)
- Military & Veterans services (United States & International)
- Hospice & Palliative Care (end of life care)
- International Social Work (United Nations, WHO - global social work; economic stress; liberation, community organizing)
- Forensic Social Work (jails, prisons, courts, public defenders, district attorney, alternative defense, specialty courts)
- Clinical - Private Practice (therapist, mental health, addictions, family, divorce)
- Trauma and Violence (combat, sexual violence, human trafficking, refugee, natural disaster)
- Police Department (co-responder, crisis intervention, therapist)
- Community Organizing

Important Information about this program:

- The MSW program has two tracks: Foundation and Advanced Standing.
- MSW Foundation Program is open to all students who have completed a bachelor's degree from an accredited university. This is a two-year program that requires 74 credits with 1050 hours of practicum/internship training.
- MSW Advanced Standing is open to all students who have completed a Bachelor Social Work degree from a CSWE accredited university within the last five years. This is a one-year program and requires 44 credits with 600 hours of internship training.
- The MSW is a degree that allows for licensure in all 50 states.
- MSW Program Acceptance required prior to enrollment. Please see the program website for specific admission requirements.

All CMU masters-level graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, information literacy, and ethical reasoning. In addition to these campus-wide student learning outcomes, a graduate of this program will be able to:

1. Demonstrate Ethical and Professional Behavior\ \ Demonstrate ethical decisions making by applying the standards of the NASW

Code of Ethics, relevant laws and regulations, models for ethical decision-making, ethical conduct of research, and additional codes of ethics as appropriate to the context; demonstrate professional demeanor in behavior; appearance; and oral, written, and electronic communication; manage personal and professional value conflicts and affective reactions; use technology ethically and appropriately to facilitate practice outcomes; and use supervision and consultation to guide professional judgment and behavior. (Applied Learning, Communication Fluency, Critical Thinking, Ethical Reasoning)\

2. Engage in Anti-Racism, Diversity, Equity, and Inclusion in Practice \ \ Demonstrate anti-racist social work practice at the individual, family, group, organizational, community, research, and policy levels, informed by the theories and voices of those who have been marginalized; demonstrate cultural humility applying critical reflexivity, self-awareness, and self-regulation to manage the influence of bias, power, privilege, and values in working with clients and constituencies acknowledging them as experts of their own lived experiences. (Specialized Knowledge/Applied Learning, Communication Fluency, Critical Thinking, Information Literacy, Ethical Reasoning)\
3. Advance Human Rights and Social, Racial, Economic, and Environmental Justice\ \ Advocate for human rights at the individual and system levels; and \ engage in practices that advance social, racial, economic, and environmental justice for equal justice and the dismantling of structural racism and oppression. (Specialized Knowledge/Applied Learning, Communication Fluency, Critical Thinking, Information Literacy, Ethical Reasoning)\ \
4. Engage in Practice Informed Research and Research informed Practice\ \ Apply research findings to inform and improve practice, policy, and programs; and identify strategies for use of quantitative and qualitative methods of research to advance the purposes of social work. (Quantitative Fluency, Critical Thinking, Information Literacy)\ \
5. Engage in Policy Practice\ \ Assess how social welfare policies affect the delivery of and access to social services; and apply critical thinking to analyze, formulate, and advocate for policies that advance human rights and social, racial, economic, and environmental justice. (Applied Learning, Communication Fluency, Critical Thinking, Ethical Reasoning\
6. Engage with Individuals, Families, Groups, Organizations, and Communities\ \ Apply knowledge of human behavior and person-in-environment, and other multidisciplinary theoretical frameworks to engage with clients and constituencies; and use empathy, reflection, and interpersonal skills to effectively engage diverse clients and constituencies. (Applied Learning, Communication Fluency, Critical Thinking, Information Literacy)\
7. Assess with Individuals, Families, Groups, Organizations, and Communities\ \ Apply knowledge of human behavior and person-in-environment and other culturally responsive multidisciplinary theoretical frameworks when assessing clients and constituencies; and demonstrate respect for client self-determination during the assessment process collaborating with clients and constituencies in developing mutually agreed-on goals. (Specialized Knowledge, Applied Learning, Communication Fluency, Critical Thinking, Ethical Reasoning)\ \
8. Intervene with Individuals, Families, Groups, Organizations, and Communities\ \ Engage with clients and constituencies to critically choose and implement culturally responsive, evidenced-based interventions to achieve mutually agreed-on practice goals and enhance capacities of clients and constituencies; and incorporate culturally responsive methods to negotiate, mediate, and advocate, with and on behalf of clients and constituencies. (Specialized Knowledge, Applied Learning, Communication Fluency, Critical Thinking, ethical Reasoning)\
9. Evaluate with Individuals, Families, Groups, Organizations, and Communities\ \ Select and use appropriate methods for evaluation of outcomes; and critically analyze outcomes and apply evaluation findings to improve practice effectiveness with individuals, families, groups, organizations, and communities. (Specialized Knowledge, Applied Learning, Quantitative Fluency, Communication Fluency, Critical Thinking, Ethical Reasoning)\

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional requirements apply to all CMU graduate-level degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Graduate certificates consist of a minimum of 5 credit hours. Master's degrees consist of a minimum of 30 credit hours. Doctoral degrees consist of a minimum of 60 credit hours.
- All credits in a graduate program must be minimally at the 500-level.
- At least fifty percent of the credit hours must be taken at CMU.
- Students must achieve a 3.00 cumulative GPA or higher in all CMU coursework.
- Students may not apply coursework with a grade lower than a "B" toward graduation requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Graduate Degree Requirements (p. 87)" in this catalog for a complete list of graduation requirements.
- All policies for graduate degrees are outlined in the Graduate Policies and Procedures Manual, Capstone Guidelines Manual, and Thesis and Dissertation Guidelines Manual, all of which are provided on the Graduate Studies website.

Specific to this degree:

- MSW program acceptance required prior to enrollment. See the program website for specific admissions requirements.

- MSW in Social Work: Foundation program is open to all bachelor degrees from an accredited university. This program requires a completion of 74 credit hours and 1050 hours of practicum/ internship. This is a two year program.
- Students must successfully pass all didactic and field education requirements.
- All courses and course sequencing are required and must be completed at CMU or through applicable transfer credit.

Program Specific Requirements

74 Semester Hours required for the degree.

Code	Title	Semester Credit Hours
SOWK 510	History and Philosophy of Social Work	3
SOWK 511	Human Behavior and Social Environment	3
SOWK 512	Social Justice in Social Work Practice	3
SOWK 513	Social Work Theory and Practice with Individuals and Families	3
SOWK 514	Social Work Theory and Practice with Groups, Organizations, and Communities	3
SOWK 515	Social Work Policy and Practice	3
SOWK 516	Psychopathology for Social Work Practice	3
SOWK 521	Advanced Ethical, Legal, and Professional Issues in Social Work Practice	3
SOWK 522	Clinical Supervision and Leadership in Social Work Practice	3
SOWK 523	Advanced Social Work Practice with Individuals and Families	3
SOWK 524	Advanced Social Work Practice with Groups, Organizations, and Communities	3
SOWK 525	Social Work Research and Program Evaluation	3
SOWK 526	Advanced Psychopathology for Social Work Practice	3
SOWK 594A	Field Education: Foundation Seminar I	1
SOWK 594B	Field Education: Foundation Seminar II	1
SOWK 594C	Field Education: Advanced Seminar I	1
SOWK 594D	Field Education: Advanced Seminar II	1
SOWK 597A	Field Education: Social Work Practicum I	5
SOWK 597B	Field Education: Social Work Practicum II	5
SOWK 599A	Field Education: Social Work Internship I	6
SOWK 599B	Field Education: Social Work Internship II	6
Choose 3 courses from the following:		9
SOWK 551	Trauma Informed Practice	
SOWK 552	Restorative Justice and Social Work	
SOWK 553	Substance Abuse: Assessment, Interventions, and Treatment	
SOWK 554	Crisis Intervention and Social Work	
SOWK 555	Global Relations and International Social Work	
SOWK 596	Topics	
Total Semester Credit Hours		**74**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
SOWK 510	History and Philosophy of Social Work	3
SOWK 511	Human Behavior and Social Environment	3
SOWK 513	Social Work Theory and Practice with Individuals and Families	3
SOWK 594A	Field Education: Foundation Seminar I	1
SOWK 597A	Field Education: Social Work Practicum I	5
	Semester Credit Hours	**15**
Spring Semester		
SOWK 512	Social Justice in Social Work Practice	3
SOWK 514	Social Work Theory and Practice with Groups, Organizations, and Communities	3
SOWK 515	Social Work Policy and Practice	3
SOWK 516	Psychopathology for Social Work Practice	3
SOWK 594B	Field Education: Foundation Seminar II	1
SOWK 597B	Field Education: Social Work Practicum II	5
	Semester Credit Hours	**18**
Summer Semester		
Choose 3 courses from the following:		9
SOWK 551	Trauma Informed Practice	
SOWK 552	Restorative Justice and Social Work	
SOWK 553	Substance Abuse: Assessment, Interventions, and Treatment	
SOWK 554	Crisis Intervention and Social Work	
SOWK 555	Global Relations and International Social Work	
SOWK 596	Topics	
	Semester Credit Hours	**9**
Second Year		
Fall Semester		
SOWK 523	Advanced Social Work Practice with Individuals and Families	3
SOWK 524	Advanced Social Work Practice with Groups, Organizations, and Communities	3
SOWK 526	Advanced Psychopathology for Social Work Practice	3
SOWK 594C	Field Education: Advanced Seminar I	1
SOWK 599A	Field Education: Social Work Internship I	6
	Semester Credit Hours	**16**
Spring Semester		
SOWK 521	Advanced Ethical, Legal, and Professional Issues in Social Work Practice	3
SOWK 522	Clinical Supervision and Leadership in Social Work Practice	3
SOWK 525	Social Work Research and Program Evaluation	3
SOWK 594D	Field Education: Advanced Seminar II	1
SOWK 599B	Field Education: Social Work Internship II	6
	Semester Credit Hours	**16**
	Total Semester Credit Hours	**74**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the

student's responsibility to understand and fulfill the requirements for their intended degree.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Social Work (BSW)

Degree: Bachelor of Social Work
Major: Social Work
Program Code: 3765

Social Work is a profession dedicated to social and economic justice through a commitment to anti-oppressive and anti-racist practice. Social workers focus primarily on the needs and empowerment of the vulnerable, oppressed, and those living in poverty.#Social workers help people overcome some of life's most difficult challenges: poverty, discrimination, abuse, addiction, physical illness, divorce, educational problems, disability, and mental illness. Social workers who graduate from a generalist Bachelor of Social Work (BSW) program gain the education and training to work with individuals, families, communities and organization across the micro, mezzo, and macro levels of intervention. The CMU BSW program is fully accredited by the Council of Social Work Education (CSWE).

The practice of social work requires knowledge of human development and behavior; of social, economic, and cultural institutions, and of the interaction of all these factors as well as skills in developing relationships,#assessing needs and services while facilitating change. Social workers seek to strengthen relationships among people to promote, restore, maintain, and enhance the well-being of individuals, families, social groups, organizations, and communities.

Students majoring in social work must **apply** to get into the social work program prior to taking any of the social work core courses. New cohorts of up to 25 students are admitted every spring semester for the subsequent fall semester. Once admitted, students will enroll in the major courses in a sequential format over 4 semesters to complete the requirements of the BSW major.

Application requirements include:

1. 60 credit hours completed in Essential Learning Requirements, Lower Division Requirements, and Foundation Courses
2. completion or in progress of completing SOWK 150 & SOWK 210
3. completion or in progress of completing PSYC 150, PSYC 233, & POLS 236
4. a formal application
5. a personal statement essay
6. an interview with faculty

Further application instructions are available on the BSW website. Students can reach out to BSW Program Director by email with any questions about admission to the program.

To graduate with a major in social work, a student must earn, with no more than two attempts, at least a grade of "C" in each course and maintain a 2.50 cumulative GPA or higher in coursework in this area. Students who graduate from a CSWE accredited BSW program are eligible for Advanced Standing in a majority of Master of Social Work programs in the United States and Canada.

For more information on what you can do with this major, visit Career Services' *What to Do with a Major?* resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Demonstrate proficiency in utilizing the social work professions 9 core competencies and 20 practice behaviors through a senior-year practicum in a social service agency in our community (Specialized Knowledge/Applied Learning).
2. Demonstrate the ability to use practice informed research and practice the use of the scientific method to develop research informed practice in academic assignments and at practicum (Quantitative Fluency).
3. Demonstrate effective oral and written communication in working with individuals, families, groups, organizations, communities, and colleagues through practicum, required classes, and oral presentations (Communication Fluency)
4. Demonstrate critical thinking to inform and communicate professional judgments through distinguishing, appraising, and integrating multiple sources of knowledge; and through analyzing models of assessment, prevention, intervention, and evaluation (Critical Thinking).
5. Engage with anti-racism, diversity, equity and inclusion (ADEI) in social work classes and practicum; \ \ Demonstrate ethical and professional behavior in classes, with peers, and in practicum by adhering to the NASW Code of Ethics (Personal and Social responsibility).
6. Demonstrate effective skills in evaluating information and applying the information to specific purposes; demonstrate ethical use of social media and technology in the classroom, in assignments, and in practicum (Information literacy).

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 110	Mathematical Investigations-GTMA1	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [2]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

1. Must receive a grade of “C” or better and must be completed by the time the student has 60 semester hours.
2. One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

1. Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(15 semester hours, must earn, with no more than two attempts, a “C” or better in each course.)

Code	Title	Semester Credit Hours
PSYC 150	General Psychology-GTSS3	3
PSYC 233	Human Growth and Development-GTSS3	3
POLS 236	State and Local Government	3

Two consecutive classes in the same foreign language	6
Total Semester Credit Hours	**15**

Program Specific Degree Requirements

(51 semester hours. To graduate with a major in social work, a student must earn, with no more than two attempts, at least a grade of "C" in each course, and maintain a 2.50 cumulative GPA or higher in coursework in this area.)

- Students majoring in social work must apply to get into the social work program prior to taking any of the social work core courses.

Code	Title	Semester Credit Hours
SOWK 150	Introduction to Social Work	3
SOWK 210	Justice, Equity, Diversity, and Inclusion (JEDI) in Social Work	3
Core Courses		
SOWK 311	Ethical Issues in Social Work	3
SOWK 320	Social Work Practices in Mental Health	3
SOWK 365	Social Work Intervention Methods I	3
SOWK 375	Social Work Intervention Methods II	3
SOWK 387	Social Work Research	3
SOWK 385	Social Work Intervention Methods III	3
SOWK 394	Social Work Practicum Seminar I	1
SOWK 397	Social Work Practicum I	5
SOWK 460	Social Policy	3
SOWK 494	Social Work Practicum Seminar II	1
SOWK 497	Social Work Practicum II	5
Restricted Electives		
Select 12 credit hours from the following:		12
SOWK 301	Child Welfare	
SOWK 308	Medical Social Work	
SOWK 325	Nature-Based Interventions for Individual and Community Health	
SOWK 340	Case Management	
SOWK 344	School Social Work	
SOWK 350	Legal Aspects of Social Work	
SOWK 355	Social Work with Immigrants and Refugees	
SOWK 377	Spirituality and Social Work	
SOWK 381	Gerontology and Social Work	
SOWK 396	Topics:	
SOWK 461	Rural Social Work	
SOWK 491	Directed Readings	
Total Semester Credit Hours		**51**

General Electives

All college-level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours. 17 semester hours needed to meet graduation requirements.

Code	Title	Semester Credit Hours
Select electives		17
Total Semester Credit Hours		**17**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
KINE 100	Health and Wellness	1
ENGL 111	English Composition I-GTCO1	3
SOWK 150	Introduction to Social Work	3
PSYC 150	General Psychology-GTSS3	3
Essential Learning - Natural Science		3
Essential Learning - Humanities		3
	Semester Credit Hours	**16**
Spring Semester		
MATH 110	Mathematical Investigations-GTMA1 (or higher)	3
ENGL 112	English Composition II-GTCO2	3
SOWK 210	Justice, Equity, Diversity, and Inclusion (JEDI) in Social Work	3
Essential Learning - History		3
General Elective		2
KINA Activity		1
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
PSYC 233	Human Growth and Development-GTSS3	3
POLS 236	State and Local Government	3
Essential Learning - Fine Arts		3
Foundation Course - Foreign Language		3
Essential Learning - Social and Behavioral Sciences		3
	Semester Credit Hours	**15**
Spring Semester		
ESSL 200	Essential Speech	1
ESSL 290	Maverick Milestone	3
Essential Learning - Natural Science with Lab		4
Essential Learning - Social and Behavioral Sciences		3
Foundation Course - Foreign Language		3
	Semester Credit Hours	**14**
Third Year		
Fall Semester		
SOWK 311	Ethical Issues in Social Work	3
SOWK 365	Social Work Intervention Methods I	3
Social Work Restricted Electives (2 courses)		6
General Elective		3
	Semester Credit Hours	**15**
Spring Semester		
SOWK 320	Social Work Practices in Mental Health	3
SOWK 375	Social Work Intervention Methods II	3
SOWK 387	Social Work Research	3
Social Work Restricted Electives (2 courses)		6
	Semester Credit Hours	**15**
Fourth Year		
Fall Semester		
SOWK 385	Social Work Intervention Methods III	3
SOWK 394	Social Work Practicum Seminar I	1
SOWK 397	Social Work Practicum I	5

General Elective (2 courses)		6
	Semester Credit Hours	**15**
Spring Semester		
SOWK 460	Social Policy	3
SOWK 494	Social Work Practicum Seminar II	1
SOWK 497	Social Work Practicum II	5
General Elective (2 courses)		6
	Semester Credit Hours	**15**
	Total Semester Credit Hours	**120**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Social Work (Minor)

Minor: Social Work
Program Code: M745

Social Work is a profession dedicated to social and economic justice through a commitment to anti-oppressive and anti-racist practice. Social workers focus primarily on the needs and empowerment of the vulnerable, oppressed, and those living in poverty. Social workers help people overcome some of life's most difficult challenges: poverty, discrimination, abuse, addiction, physical illness, divorce, educational problems, disability, and mental illness. Students who graduate with a social work minor will develop an area of expertise that complement careers in government, human and health services, criminal justice, and social justice. The CMU BSW program is fully accredited by the Council of Social Work Education (CSWE).

The practice of social work requires knowledge of human development and behavior; of social, economic, and cultural institutions, and of the interaction of all these factors as well as skills in developing relationships, assessing needs and services while facilitating change. Social workers seek to strengthen relationships among people to promote, restore, maintain, and enhance the well-being of individuals, families, social groups, organizations, and communities.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(18 semester hours)

Code	Title	Semester Credit Hours
SOWK 150	Introduction to Social Work	3
SOWK 210	Justice, Equity, Diversity, and Inclusion (JEDI) in Social Work	3
Select 12 credit hours from the following courses:		12
SOWK 301	Child Welfare	
SOWK 308	Medical Social Work	
SOWK 325	Nature-Based Interventions for Individual and Community Health	
SOWK 340	Case Management	
SOWK 344	School Social Work	
SOWK 350	Legal Aspects of Social Work	
SOWK 355	Social Work with Immigrants and Refugees	
SOWK 377	Spirituality and Social Work	
SOWK 381	Gerontology and Social Work	
SOWK 396	Topics:	
SOWK 461	Rural Social Work	
SOWK 491	Directed Readings	
Total Semester Credit Hours		**18**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the "Intent to Graduate" form.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Sociology

Program Description

Sociology is the scientific study of social life. It is the exploration of social change and the complexities of the causes and consequences of human behavior, focusing on the ways social factors shape human behavior. Sociologists study a broad range of topics, including families, politics, religion, education, race, class, and gender (and much more!). Sociologists ask questions about patterns of human life and then answer those questions using a variety of theoretical perspectives and research methodologies. Sociologists frequently contribute to public debate about the causes of social problems and what we could do to help bring about positive social change.

The BA in Sociology exemplifies Colorado Mesa University's liberal arts mission, emphasizing a wide range of skills and content areas. The Sociology program encourages students to develop critical thinking skills, quantitative literacy, and the ability to apply their "sociological imagination" to problems, programs, and policies in the real world. Beyond this, sociology prepares students for responsible action in the social world and provides a foundation for lifelong learning and civic participation.

The American Sociological Association calls sociology a "21st Century Major" because it offers the flexibility students will need in a fast-changing and increasingly global labor market. Graduates who choose to go directly into a career can find work in human resources, social services, government, business, the health professions, the criminal justice system, and a wide variety of other industries. Sociology graduates are also very well-prepared for graduate study in sociology and related disciplines.

Contact Information

Department of Social and Behavioral Sciences
Houston Hall
970.248.1696

Programs of Study Bachelors/Minors

- Sociology (BA) (p. 749)
- Sociology (Minor) (p. 752)

Sociology (BA)

Degree: Bachelor of Arts
Major: Sociology
Program Code: 3728

Sociology is the scientific study of social life, social change, social organization, and the complex social causes and consequences of human behavior. Since all human behavior is social, the subject matter of sociology covers a broad array of topics, including family, religion, crime, politics, life course, race, gender, and social class. Sociology provides many distinctive perspectives on the social world, as well as a range of research methodologies that can be applied to virtually any aspect of social life, from corporate downsizing to problems of peace and war to the expression of emotion and beyond. Because sociology addresses the most challenging issues of our time, it is an expanding field increasingly tapped by those who craft policies and create social programs. For more

information on the subject matter of sociology, got to www.asanet.org/topics.

Sociology majors gain important skills in critical thinking, research methods and responsible citizenship. Sociology majors are prepared for future graduate work in sociology and related disciplines, as well as for a wide variety of careers in such sectors as business, the health professions, the criminal justice system, social services, human resources and government.

For more information on what you can do with this major, visit Career Services and the American Sociological Association's *Major in Sociology* web page.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Apply Scientific Principles to an Understanding of the Social World in a Summative Project (Specialized Knowledge/Applied Learning)
2. Rigorously Analyze and Evaluate the Quality of Social Scientific Methods and Data (Quantitative Reasoning)
3. Defend Sociological Analyses of Social Phenomena in Formal Papers and Oral Presentations. (Communication Fluency)
4. Critically Evaluate Explanations of Human Behavior and Social Phenomena (Critical Thinking)
5. Use Sociological Knowledge to Contribute to Public Understanding of Social Issues, Policy Debates, and the Development of a Sense of Civic Duty (Personal and Social Responsibility; Applied Learning)
6. Develop Scholarly Arguments by Locating, Evaluating, Applying, and Synthesizing Information from Sociological and Other Social Scientific Sources (Information Literacy)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 110	Mathematical Investigations-GTMA1	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [2]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

[1] Must receive a grade of “C” or better and must be completed by the time the student has 60 semester hours.

[2] One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(13 semester hours)

Code	Title	Semester Credit Hours
GEOG 102	Human Geography-GTSS2	3
STAT 215	Statistics for Social and Behavioral Sciences	4
Two consecutive classes in the same foreign language [1]		6
Total Semester Credit Hours		**13**

[1] Must earn a grade of "C" or better in each course.

Program Specific Degree Requirements

(48 semester hours, must maintain a 2.5 cumulative GPA or higher in coursework in this area, and no more than one "D" may be used in completing major requirements.)

Code	Title	Semester Credit Hours
Core Courses		
SOCO 202	Introduction to Sociological Inquiry	3
SOCO 260	General Sociology-GTSS3	3
SOCO 264	Social Problems-GTSS3	3
SOCO 303	Sociological Research Methods	3
SOCO 370	Roots of Sociological Thought	3
SOCO 375	Contemporary Sociological Perspectives	3
SOCO 493	Senior Capstone	3
Sociology Electives		
Select seven of the following:		21
SOCO 300	Political Sociology	
SOCO 305	Environmental Sociology	
SOCO 310	Sociology of Religion	
SOCO 312	Social Movements and Political Activism	
SOCO 314	Population	
SOCO 316	Social Inequality	
SOCO 318	Sociology of Health & Illness	
SOCO 320	Life Course and Aging	
SOCO 323	Self and Society	
SOCO 325	Race and Ethnic Relations	
SOCO 340	Sociology of Gender	
SOCO 345	Sociology of Sexuality	
SOCO 351	21st Century Families	
SOCO 396	Topics	
SOCO 399	Internship	
SOCO 496	Topics	
Total Semester Credit Hours		**42**

Code	Title	Semester Credit Hours
Restricted Electives		
Select two of the following:		6
CRMJ 311	Victimology	
CRMJ 330	Intimate Partner Violence	
CRMJ 360	Crime and Deviance	
CRMJ 370	Criminology	
CRMJ 375	Women and Crime	
CRMJ 470	Restorative Justice	
PHIL 340	The Examined Life	
PHIL 350	The Roots of Western Thought	
PSYC 310	Child Psychology	
PSYC 320	Social Psychology	
PSYC 330	Psychology of Adolescents and Emerging Adulthood	
PSYC 335	Psychology of Women	
PSYC 350	Psychology of Adulthood	
PSYC 370	Cross-Cultural Psychology	
PSYC 411	Human Sexuality	
SOWK 301	Child Welfare	
SOWK 308	Medical Social Work	
SOWK 350	Legal Aspects of Social Work	
SOWK 377	Spirituality and Social Work	
SOWK 381	Gerontology and Social Work	
Any upper division courses from History or Political Science		
Total Semester Credit Hours		**6**

General Electives

All college level courses appearing on your final transcript not listed above that will bring your total semester hours to 120 hours, including 40 hours of upper division hours. 22 semester hours, including 1 hour of upper division may be needed.

Code	Title	Semester Credit Hours
Select electives		22
Total Semester Credit Hours		**22**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
Essential Learning - Humanities		3
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - Natural Science		3
MATH 110	Mathematical Investigations-GTMA1	3
	Semester Credit Hours	**15**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
Essential Learning - History		3
KINE 100	Health and Wellness	1
STAT 215	Statistics for Social and Behavioral Sciences	4
SOCO 260	General Sociology-GTSS3	3
	Semester Credit Hours	**14**
Second Year		
Fall Semester		
Essential Learning - Natural Science with Lab		4
Foundation Course - Foreign Language		3
Essential Learning - Social and Behavioral Sciences		3
GEOG 102	Human Geography-GTSS2	3
SOCO 202	Introduction to Sociological Inquiry	3
	Semester Credit Hours	**16**
Spring Semester		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
SOCO 264	Social Problems-GTSS3	3
Foundation Course - Foreign Language		3
General Elective		5
	Semester Credit Hours	**15**
Third Year		
Fall Semester		
SOCO 370	Roots of Sociological Thought	3
Sociology Electives (2 courses)		6
Restricted Elective		3
General Elective		3
	Semester Credit Hours	**15**
Spring Semester		
SOCO 303	Sociological Research Methods	3
SOCO 375	Contemporary Sociological Perspectives	3
Sociology Elective		3
Essential Learning- Fine Arts		3
KINA Activity		1
General Electives		2
	Semester Credit Hours	**15**
Fourth Year		
Fall Semester		
Sociology Electives (2 courses)		6
Restricted Elective		3
General Electives		6
	Semester Credit Hours	**15**
Spring Semester		
SOCO 493	Senior Capstone	3
Sociology Elective (2 courses)		6
General Electives		6
	Semester Credit Hours	**15**
	Total Semester Credit Hours	**120**

Advising and Graduation
Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Sociology (Minor)

Minor: Sociology
Program Code: M750

Students who minor in sociology develop an understanding of social life, social change, social organization, and the social causes and consequences of human behavior. Sociology minors also develop critical thinking and communication skills that are useful in any career path they choose. The sociology minor combines well with a wide variety of majors and serves to encourage a sense of social responsibility.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information,

scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(21 semester hours)

Code	Title	Semester Credit Hours
SOCO 144	Marriage and Families-GTSS3	3
or SOCO 264	Social Problems-GTSS3	
SOCO 202	Introduction to Sociological Inquiry	3
SOCO 260	General Sociology-GTSS3	3
SOCO 370	Roots of Sociological Thought	3
or SOCO 375	Contemporary Sociological Perspectives	
9 semester hours of upper-division Sociology (SOCO) courses		9
Total Semester Credit Hours		**21**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student’s responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar’s Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar’s Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the “Intent to Graduate” form.

If a student’s petition for graduation is denied, it will be their responsibility to consult the Registrar’s Office regarding next steps.

Spanish

Program Description

The Spanish and Hispanic Studies Program at CMU develops students' abilities to speak and write Spanish, understand spoken and written Spanish, as well as develop cultural competency, which enables them to interact with individuals of various Spanish-speaking countries. In addition to the core classes, students may select from a variety of courses in language, literature, and applied professional Spanish. If they are interested in professional Spanish, students can strengthen their skills in a professional environment, including medical and social services, translation, interpreting, and business. They may also gain experience through internships in a variety of settings, including the sheriff's department, the county courthouse, various medical offices, and non-profit organizations. Students may choose courses that provide theoretical and applied insights into Spanish language, linguistics, and literature. In literature courses, they will examine specific literary genres as well as a variety of the periods, regions, and movements. In linguistics courses, they can explore language variation in the Hispanic world through Phonetics & Phonology and Sociolinguistics.

With our ever-increasing contact with Spanish speakers both at home and abroad, bilingual skills will help you communicate with those in your field, whether you pursue a career in health, law, engineering, construction management, business, or social work. This ability can open doors in any profession you choose. Studies have shown that job candidates who have bilingual abilities are highly sought after. Employers value the ability to communicate in Spanish, and strong language skills enhance graduates' opportunities, especially when they combine their Spanish degree with other CMU programs.

An optional Spanish Summer Study Abroad Program provides direct exposure to language and culture in a variety of countries. Coordinated with the Spanish content courses, the Center for Teacher Education at CMU offers a comprehensive program of study that leads to a secondary teaching licensure in Colorado. At 21 credits, the Spanish minor is also a perfect complement to any major.

Contact Information

Department of Languages, Literature, and Mass Communication
Escalante Hall 237
970.248.1687

Programs of Study Bachelors/Minors

- Education: Secondary Education, Spanish (BA) (p. 757)
- Hispanic Studies, Spanish (BA) (p. 754)
- Spanish (Minor) (p. 760)
- Translation and Interpreting, Spanish (BA) (p. 761)

Hispanic Studies, Spanish (BA)

Degree: Bachelor of Arts
Major: Spanish
Concentration: Hispanic Studies
Program Code: 3247

Spanish majors at Colorado Mesa University take classes which provide knowledge and skills intended to produce effective communication in Spanish as well as an understanding of the relationship of the Spanish language and its cultures to the world in which we live. Spanish and Hispanic Studies majors gain valuable insights into Peninsular and Latin-American language and literature as well as their histories and cultures. Students are also introduced to the linguistic properties of the Spanish language, with a focused study of Spanish phonetics and phonology. Students also take classes which provide insights into Spanish in the professions, such as translation, interpreting, and medical. Spanish graduates work in a variety of professions, where they apply their cultural competencies. In addition to that, many continue their studies in graduate schools.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Express themselves coherently in written and oral Spanish. (Communication Fluency)
2. Apply knowledge of the structure of the Spanish language, including syntax, phonetics/phonology, and morphology in speech and writing. (Applied Learning)
3. Interpret and analyze important literary and artistic movements/works, history, and/or cultural aspects in relation to the Spanish-speaking world. (Specialized Knowledge)
4. Identify the linguistic and cultural variations that exist in the Spanish-speaking world. (Specialized Knowledge, Critical Thinking)
5. Develop a research project focused on the application of Spanish within a specific field (e.g. significant literary movements/works and the authors; the application of Spanish in a professional context; second language acquisition or teaching methodologies). (Critical Thinking, Information Literacy)
6. Interpret data, including timelines, graphs, and/or statistics, in order to compare commonalities and differences in the Hispanic speaking world. (Quantitative literacy)
7. Demonstrate professional ethics and codes of conduct for specific professions in the Spanish speaking world, including medical field, business, and translation and interpretation (Specialized Knowledge, Ethics)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 110	Mathematical Investigations-GTMA1	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [2]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

[1] Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

[2] One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(6 semester hours, must earn a "C" or better in each course)

- This requirement can be waived depending on proficiency and evaluation by Spanish program faculty. If waived, additional coursework may be needed to fulfill program requirements and reach 120 credits.

Code	Title	Semester Credit Hours
Two consecutive classes in the same foreign language [1]		6
Total Semester Credit Hours		**6**

[1] Dependent incoming Spanish proficiency level, either FLAS 111 & FLAS 112 or FLAS 211 & FLAS 213 are strongly recommended as these are prerequisites for other courses required for completion of this degree.

Program Specific Degree Requirements

(42 semester hours, must pass all courses with a grade of "C" or higher and maintain a 3.00 cumulative GPA or higher in coursework in this area.)

Code	Title	Semester Credit Hours
Core Courses		
FLAS 300	Spanish Composition and Grammar	3
FLAS 304	Advanced Oral Production and Composition	3

FLAS 305	Advanced Spanish Grammar and Spanish English Contrasts	3
FLAS 311	History and Culture of Spain	3
FLAS 312	History and Culture of Latin America	3
FLAS 323	Introduction to Hispanic Literature I	3
FLAS 324	Introduction to Hispanic Literature II	3
FLAS 341	Introduction to Hispanic Linguistics	3
FLAS 441	Applied Phonetics and Phonology	3
Hispanic Studies		
Select one of the following:		3
FLAS 424	Advanced Hispanic Literature	
FLAS 446	Spanish Language Variation	
Applied Studies		
Select one of the following:		3
FLAS 431	Spanish for Medical and Social Services	
FLAS 433	Spanish for the Professions	
FLAS 438	Methods and Specialized Practices in Translation	
FLAS 439	Methods and Specialized Practices in Interpreting	
Restricted Electives		
Select two additional 300- or 400-level FLAS or FLAV courses		6
Capstone Experience		
Select one of the following:		3
FLAS 498	Spanish Senior Practicum	
FLAS 499	Internship	
Total Semester Credit Hours		**42**

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours. 35 semester hours may be needed. FLAS 424 and topics courses may be taken more than once as long as the title/content of each course differs.

Code	Title	Semester Credit Hours
Select electives		35
Total Semester Credit Hours		**35**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
Essential Learning - Humanities		3
Essential Learning - Natural Science		3
FLAS 111	First-Year Spanish I	3
KINE 100	Health and Wellness	1
General Elective		3
	Semester Credit Hours	**16**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
Essential Learning - History		3
MATH 110	Mathematical Investigations-GTMA1 (or higher)	3
FLAS 112	First-Year Spanish II	3
KINA Activity		1
General Elective		2
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
FLAS 211	Second-Year Spanish I	3
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - Fine Arts		3
Essential Learning - Natural Science with Lab		4
General Elective		3
	Semester Credit Hours	**16**
Spring Semester		
FLAS 213	Spanish Conversation and Grammar	3
FLAS 300	Spanish Composition and Grammar	3
Essential Learning - Social and Behavioral Sciences		3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
General Elective		3
	Semester Credit Hours	**16**
Third Year		
Fall Semester		
FLAS 304	Advanced Oral Production and Composition	3
FLAS 305	Advanced Spanish Grammar and Spanish English Contrasts	3
General Electives (3 courses)		9
	Semester Credit Hours	**15**
Spring Semester		
FLAS 312	History and Culture of Latin America	3
FLAS 324	Introduction to Hispanic Literature II	3
FLAS 341	Introduction to Hispanic Linguistics	3
General Electives (2 courses)		6
	Semester Credit Hours	**15**
Fourth Year		
Fall Semester		
FLAS 311	History and Culture of Spain	3
FLAS 323	Introduction to Hispanic Literature I	3
FLAS 441	Applied Phonetics and Phonology	3
Hispanic Studies Elective		3
General Elective		3
	Semester Credit Hours	**15**
Spring Semester		
FLAS 498 or FLAS 499	Spanish Senior Practicum or Internship	3
Applied Studies Elective		3
Restricted Electives (2 courses)		6
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**120**

Advising and Graduation Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress

towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Education: Secondary Education, Spanish (BA)

Degree: Bachelor of Arts
Major: Spanish
Concentration: Secondary Education
Program Code: 3248

Spanish majors for secondary licensure study all aspects of the language and cultures of the Spanish-speaking world and its teaching, including linguistics, phonetics and phonology, foreign language teaching methods, and the literatures of Spain and Latin America.

The Center for Teacher Education offers a comprehensive program of study that leads to licensure in Colorado. Our professors are experienced, knowledgeable, accessible, and dedicated to the improvement of public education. At Colorado Mesa University, we pride ourselves on the personal touch. Faculty offer one-on-one guidance for course selection, field placements, student teaching, and employment. Our mission is to develop *Educators as Innovators*; we are always looking to improve the quality of learning in our programs and K-12 schools.

As a student, you will gradually accumulate over 200 hours of classroom experience before beginning student teaching. School districts throughout western Colorado provide opportunities to gain experience with children of various ages and backgrounds in a variety of school settings. A minimum of 75 credit hours of Essential Learning and content area coursework must be completed with a minimum GPA of 2.80 before a candidate may apply for admission to the Center for Teacher Education secondary licensure program. Please see the Teacher Education Admission Packet for further information on admissions criteria. EDUC 115 and EDUC 215, must be taken before applying to the program.

Important information about this degree:

- 2.80 cumulative GPA or higher in all CMU coursework.
- 2.80 cumulative GPA or higher in coursework toward the major content area.
- All EDUC prefix courses must be completed with a grade of "B" or better to progress through the program sequence.
- Students must pass the PRAXIS II exam in the content area prior to beginning the internship. Also, all other coursework toward the degree must be successfully completed prior to the internship.
- A grade of "C" or better must be earned in all required foundation and major courses, unless otherwise stated.
- Any combination of FLAS 212, FLAS 301, FLAS 302, and FLAS 303 may also be used to satisfy the requirements of a major in which there exists a foreign language requirement.
- FLAV 496 and FLAS 422 may be taken more than once as long as the title/content of each course differs. Permission may be required to take some Topics courses. Check with the professor.
- Topics courses may be taken more than one time only if the course has a different topic.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Spanish Outcome 1: Express themselves coherently in written and oral Spanish. (Communication Fluency)
2. Spanish Outcome 2: Apply knowledge of the structure of the Spanish language, including syntax, phonetics/phonology, and morphology in speech and writing. (Applied Learning)
3. Spanish Outcome 3: Interpret and analyze important literary and artistic movements/works, history, and/or cultural aspects in relation to the Spanish-speaking world. (Specialized Knowledge)
4. Spanish Outcome 4: Identify the linguistic and cultural variations that exist in the Spanish-speaking world. (Specialized Knowledge, Critical Thinking)
5. Spanish Outcome 5: Develop a research project focused on the application of Spanish within a specific field (e.g. significant literary movements/works and the authors; the application of Spanish in a professional context; second language acquisition or teaching methodologies). (Critical Thinking, Information Literacy)
6. Spanish Outcome 6: Interpret data, including timelines, graphs, and/or statistics, in order to compare commonalities and differences in the Hispanic speaking world. (Quantitative literacy)
7. Teacher Education Outcome 1: Demonstrate mastery of major area's content knowledge and pedagogical strategies through fieldwork with learners in professional settings. (Specialized Knowledge/Applied Learning)
8. Teacher Education Outcome 2: Design and establish a safe, inclusive, and respectful learning environment for a diverse population of students. (Specialized Knowledge/Applied Learning)
9. Teacher Education Outcome 3: Plan and deliver effective instruction to students, based on research-based pedagogical practices. (Communication Literacy/Information Literacy)

10. Teacher Education Outcome 4: Collect and analyze student assessment data and use results to inform planning and instruction. (Quantitative Fluency/Critical Thinking)
11. Teacher Education Outcome 5: Demonstrate professionalism through ethical conduct, reflection, and leadership. (Personal and Social Responsibility)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Specific to this program:

- 2.80 cumulative GPA or higher in all CMU coursework.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [2]		
MATH 110	Mathematical Investigations-GTMA1	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
PSYC 233	Human Growth and Development-GTSS3 [3]	3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [4]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

1 Must receive a grade of “B” or better and must be completed by the time the student has 60 semester hours.
2 Must receive a grade of “C” or better, must be completed by the time the student has 60 semester hours.
3 Must receive a grade of “B” or better.
4 One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity Course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

1 Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(6 semester hours, must pass all courses with a grade of "C" or higher.)

- This requirement can be waived depending on proficiency and evaluation by Spanish program faculty. If waived, additional coursework may be needed to fulfill program requirements and reach 120 credits.

Code	Title	Semester Credit Hours
Two consecutive classes in the same foreign language		6
Total Semester Credit Hours		**6**

Program Specific Degree Requirements

(42 semester hours, must pass all courses with a grade of "C" or higher and maintain a 2.80 cumulative GPA or higher in coursework in this area.)

- Topics courses may be taken more than one time only if the course has a different topic.

Code	Title	Semester Credit Hours
Core Courses		
FLAS 300	Spanish Composition and Grammar	3
FLAS 304	Advanced Oral Production and Composition	3
FLAS 305	Advanced Spanish Grammar and Spanish English Contrasts	3
FLAS 311	History and Culture of Spain	3
FLAS 312	History and Culture of Latin America	3
FLAS 323	Introduction to Hispanic Literature I	3
FLAS 324	Introduction to Hispanic Literature II	3
FLAS 341	Introduction to Hispanic Linguistics	3
FLAS 441	Applied Phonetics and Phonology	3
Hispanic Studies		
Select one of the following:		3
FLAS 424	Advanced Hispanic Literature	
FLAS 446	Spanish Language Variation	
Applied Studies		
Select one of the following:		3
FLAS 431	Spanish for Medical and Social Services	
FLAS 433	Spanish for the Professions	
FLAS 438	Methods and Specialized Practices in Translation	
FLAS 439	Methods and Specialized Practices in Interpreting	
Capstone Experience		
FLAS 498	Spanish Senior Practicum	3
Restricted Electives		
Select two additional additional 300- or 400-level FLAS or FLAV courses		6
Total Semester Credit Hours		**42**

Secondary Education Requirements

(29 semester hours, All EDUC prefix courses must be completed with a grade of "B" or better to progress through the program sequence.)

Education Requirements:

- ENGL 111, ENGL 112, PSYC 233, EDUC 115 and EDUC 215 (all with a grade of "B" or better) and formal acceptance to the Teacher Education Program.
- Students must pass the PRAXIS II exam in the content area prior to beginning the internship. Also, ALL other coursework toward the degree must be successfully completed prior to the internship.

Code	Title	Semester Credit Hours
EDUC 115	What It Means To Be An Educator (8 field experience hours)	1
EDUC 215	Teaching as a Profession (12 field experience hours)	1
EDUC 342	Pedagogy and Assessment: Secondary and K-12 (20 field experience hours)	3
EDUC 343	Teaching to Diversity (20 field experience hours)	3
EDUC 442	Integrating Literacy Across the Curriculum: Secondary and K-12 Art (60 field experience hours)	3
EDUC 475	Classroom Management for K-12 Educators	1
EDUC 480	Methods and Topics in Secondary Teaching	3
EDUC 480E	Methods of Teaching Secondary Spanish [1]	2
EDUC 499G	Teaching Internship and Colloquia: Secondary (600 field experience hours)	12
Praxis II Exam Passed		
Total Semester Credit Hours		**29**

[1] This course is only offered in the fall semester. It may be taken with either the 300-level or 400-level EDUC courses but must be taken before the student teaching semester.

All EDUC prefix courses listed above must be completed with a grade of B or better to progress through the program sequence. Students must PASS the PRAXIS II exam in the content area prior to commencing the internship. Also, ALL other coursework toward the degree must be successfully completed prior to the internship.

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours. 6 semester hours. FLAS 424 and topics courses may be taken more than once as long as the title/content of each course differs.

Code	Title	Semester Credit Hours
Select electives		6
Total Semester Credit Hours		**6**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
Foundation Course [1]		3
Essential Learning - Humanities		3

ENGL 111	English Composition I-GTCO1	3
Essential Learning - Natural Science		3
KINE 100	Health and Wellness	1
Elective		3
	Semester Credit Hours	**16**
Spring Semester		
Foundation Course [2]		3
FLAS 300	Spanish Composition and Grammar	3
ENGL 112	English Composition II-GTCO2	3
Essential Learning - History		3
MATH 110	Mathematical Investigations-GTMA1 (or higher)	3
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
FLAS 304	Advanced Oral Production and Composition	3
FLAS 305	Advanced Spanish Grammar and Spanish English Contrasts	3
PSYC 233	Human Growth and Development-GTSS3	3
Essential Learning - Fine Arts		3
Essential Learning - Natural Science with Lab		4
	Semester Credit Hours	**16**
Spring Semester		
EDUC 115	What It Means To Be An Educator	1
KINA Activity		1
Essential Learning - Social and Behavioral Sciences		3
FLAS 312	History and Culture of Latin America	3
FLAS 324	Introduction to Hispanic Literature II	3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
	Semester Credit Hours	**15**
Third Year		
Fall Semester		
EDUC 215	Teaching as a Profession	1
Elective		3
FLAS 311	History and Culture of Spain	3
FLAS 323	Introduction to Hispanic Literature I	3
FLAS 341	Introduction to Hispanic Linguistics	3
Hispanic Studies Elective		3
	Semester Credit Hours	**16**
Spring Semester		
EDUC 342	Pedagogy and Assessment: Secondary and K-12	3
EDUC 343	Teaching to Diversity	3
FLAS 441	Applied Phonetics and Phonology	3
Restricted Electives (2 courses)		6
	Semester Credit Hours	**15**
Fourth Year		
Fall Semester		
EDUC 442	Integrating Literacy Across the Curriculum: Secondary and K-12 Art	3
EDUC 475	Classroom Management for K-12 Educators	1
EDUC 480	Methods and Topics in Secondary Teaching	3
EDUC 480E	Methods of Teaching Secondary Spanish	2
FLAS 498	Spanish Senior Practicum	3
Applied Studies Elective		3
	Semester Credit Hours	**15**
Spring Semester		
EDUC 499G	Teaching Internship and Colloquia: Secondary	12
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**120**

[1] Recommended: FLAS 211

[2] Recommended: FLAS 213

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Spanish (Minor)

Minor: Spanish
Program Code: M245

The minor in Spanish at CMU is focused on developing students' abilities to speak, write and understand the Spanish language, as well as increasing the understanding of the cultures of Spanish-speaking countries. The goal is that those who graduate with this minor will become proficient enough to enable them to use Spanish effectively in a variety of practical settings.

Students pursuing this minor are allowed certain flexibility to choose classes that best complement their major area of study.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(21 semester hours, must pass all courses with a grade of "C" or higher.)

- FLAV 496 may be taken more than once as long as the title/content of each course differs. Permission may be required to take some Topics courses. Check with the professor.
- FLAV courses count for the Spanish minor only when taught in Spanish and as approved by your advisor.

Code	Title	Semester Credit Hours
FLAS 213	Spanish Conversation and Grammar [1]	3
18 credits of 300- or 400-level FLAS or FLAV courses		18-21
Total Semester Credit Hours		21

[1] FLAS 213 can be waived for those with sufficient proficiency.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the "Intent to Graduate" form.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Translation and Interpreting, Spanish (BA)

Overview

Degree: Bachelor of Arts
Major: Spanish
Concentration: Translation and Interpreting
Program Code: 3289

Spanish majors at Colorado Mesa University take classes which provide knowledge and skills intended to produce effective communication in Spanish as well as an understanding of the relationship of the Spanish language and its cultures to the world in which we live. Spanish and Translation and Interpretation majors gain valuable insights into Peninsular and Latin-American language and literature as well as their histories and cultures. Students are also introduced to the linguistic properties of the Spanish language, with a focused study of Spanish phonetics and phonology. Students also take classes which provide insights into translation and interpreting, including internships and labs. Students can also take classes in Spanish for the professions and Spanish for medical and social services. Spanish graduates work in a variety of professions, where they apply their cultural and linguistic competencies. In addition, many continue their studies in graduate schools.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social

responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Express themselves coherently in written and oral Spanish. (Communication Fluency)
2. Apply knowledge of the structure of the Spanish language, including syntax, phonetics/phonology, and morphology in speech and writing. (Applied Learning)
3. Interpret and analyze important literary and artistic movements/works, history, and/or cultural aspects in relation to the Spanish-speaking world. (Specialized Knowledge)
4. Identify the linguistic and cultural variations that exist in the Spanish-speaking world. (Specialized Knowledge, Critical Thinking)\ \
5. Develop a research project focused on the application of Spanish within a specific field (e.g. significant literary movements/works and the authors; the application of Spanish in a professional context; second language acquisition or teaching methodologies). (Critical Thinking, Information Literacy)
6. Interpret data, including timelines, graphs, and/or statistics, in order to compare commonalities and differences in the Hispanic speaking world. (Quantitative literacy)
7. Demonstrate professional ethics and codes of conduct for specific professions in the Spanish speaking world, including medical field, business, and translation and interpretation (Specialized Knowledge, Ethics)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 110	Mathematical Investigations-GTMA1	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [2]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

[1] Must receive a grade of “C” or better and must be completed by the time the student has 60 semester hours.

[2] One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		

ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(6 semester hours, must earn a "C" or better in each course)

- This requirement can be waived depending on proficiency and evaluation by Spanish program faculty.

Code	Title	Semester Credit Hours
Two consecutive classes in the same foreign language [1]		6
Total Semester Credit Hours		**6**

[1] Depending upon incoming Spanish proficiency level, either FLAS 111 & FLAS 112 or FLAS 211 & FLAS 213 are strongly recommended as these are prerequisites for other courses required for completion of this degree.

Program Specific Requirements

(45 semester hours, must pass all courses with a grade of "C" or higher and maintain a 3.00 cumulative GPA or higher in coursework in this area.)

Code	Title	Semester Credit Hours
Core Courses		
FLAS 300	Spanish Composition and Grammar	3
FLAS 304	Advanced Oral Production and Composition	3
FLAS 305	Advanced Spanish Grammar and Spanish English Contrasts	3
FLAS 311	History and Culture of Spain	3
FLAS 312	History and Culture of Latin America	3
FLAS 323	Introduction to Hispanic Literature I	3
FLAS 324	Introduction to Hispanic Literature II	3
FLAS 341	Introduction to Hispanic Linguistics	3
FLAS 441	Applied Phonetics and Phonology	3
Translation and Interpreting		
FLAS 334	Introduction to Translation and Interpreting	3
FLAS 438	Methods and Specialized Practices in Translation	3
FLAS 439	Methods and Specialized Practices in Interpreting	3
Hispanic Studies		
Select one of the following:		3
FLAS 424	Advanced Hispanic Literature	
FLAS 446	Spanish Language Variation	
Applied Studies		
Select one of the following:		3
FLAS 431	Spanish for Medical and Social Services	
FLAS 433	Spanish for the Professions	
Capstone Experience		
Take three credits of the following:		3
FLAS 334L	Translation and Interpreting Laboratory	
FLAS 498	Spanish Senior Practicum	
FLAS 499	Internship	
Total Semester Credit Hours		**45**

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours. 32 semester hours.

- FLAS 424, and topics courses may be taken more than once as long as the title/content of each course differs.

Code	Title	Semester Credit Hours
Select electives		32
Total Semester Credit Hours		**32**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
KINE 100	Health and Wellness	1
Foundation - Foreign Language		3
Essential Learning - Humanities		3
Essential Learning - Natural Science		3
General Elective		3
	Semester Credit Hours	**16**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
MATH 110	Mathematical Investigations-GTMA1 (or higher)	3
Foundation - Foreign Language		3
Essential Learning - History		3
KINA Activity		1
General Elective		2
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
FLAS 300	Spanish Composition and Grammar	3
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - Fine Arts		3
Essential Learning - Natural Science with Lab		4
General Elective		3
	Semester Credit Hours	**16**
Spring Semester		
FLAS 304	Advanced Oral Production and Composition	3
FLAS 305	Advanced Spanish Grammar and Spanish English Contrasts	3
Essential Learning - Social and Behavioral Sciences		3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
General Elective		3
	Semester Credit Hours	**16**

Third Year		
Fall Semester		
FLAS 311	History and Culture of Spain	3
FLAS 323	Introduction to Hispanic Literature I	3
FLAS 334	Introduction to Translation and Interpreting	3
FLAS 341	Introduction to Hispanic Linguistics	3
General Elective		3
	Semester Credit Hours	**15**
Spring Semester		
FLAS 312	History and Culture of Latin America	3
FLAS 324	Introduction to Hispanic Literature II	3
FLAS 438	Methods and Specialized Practices in Translation	3
FLAS 441	Applied Phonetics and Phonology	3
General Elective		3
	Semester Credit Hours	**15**
Fourth Year		
Fall Semester		
FLAS 439	Methods and Specialized Practices in Interpreting	3
Hispanic Studies Elective		3
General Electives (2 courses)		6
	Semester Credit Hours	**12**
Spring Semester		
Take three credits of the following:		3
FLAS 498	Spanish Senior Practicum	
FLAS 499	Internship	
FLAS 334L	Translation and Interpreting Laboratory	
Applied Studies Elective		3
General Electives (3 courses)		9
	Semester Credit Hours	**15**
	Total Semester Credit Hours	**120**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

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Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Sport Management

Program Description

The Master of Science in Sport Management serves to develop students' conceptual skills, theoretical comprehension, and practical knowledge in order to prepare them as next generation leaders in the sport industry. The degree leads to a wide variety of career choices. Sport management graduates work in school, university, and college settings as athletic administrators, in public relations/marketing, or in professional or amateur sports areas.

The Bachelor of Science in Sport Management prepares students to enter the world of sport business or pursue a graduate degree. The sport management degree provides an overview of the history and role of sport in society and covers topics such as leadership and ethics, governance and communication and legal considerations in sport operations. Students will also obtain business administration skills through courses in accounting, marketing, economics and business information technology.

The Associate of Science in Sport Management is designed for students who intend to continue their education and obtain a baccalaureate degree. The degree program includes the Colorado Statewide General Education Core and meets the lower-division general education requirements at most public institutions in Colorado. Graduates of this program may obtain entry-level positions in sport management or continue to pursue their bachelor-level education to obtain eventual higher-level positions related to sport management, business, or kinesiology.

The minor in Sport Management provides a strong platform for students to combine their interests in business with the business of sports. Students will explore subject areas which include: principles of management, organization/administration/legal considerations, marketing, governance and communication, sport law and risk management, leadership and ethics. This minor complements business or mass communication majors.

Opportunities for college graduates with sport management education and experience are very diverse and challenging. As sport has evolved into an integral part of the American culture, the operations of sports programs have become more sophisticated and complex. With an understanding of the intricacies of sport activities and knowledge of effective business practices, graduates will be prepared to oversee sport programs and facilities. Sport management positions are found in a variety of settings including schools, colleges and universities, public and private agencies, private businesses, government and the military.

Contact Information

Department of Kinesiology
Maverick Center 237B
970.248.1635

Programs of Study

Associates

- Sports Management, Liberal Arts (AS) (p. 769)

Bachelors/Minors

- Sport Management (BS) (p. 767)
- Sport Management (Minor) (p. 771)

Graduate

- Sport Management (MS) (p. 765)

Sport Management (MS)

Degree: Master of Science
Program of Study: Sport Management
Program Code: 8150

The Department of Kinesiology offers the Master of Science degree in Sport Management. The mission of the degree program is to develop students' conceptual skills, theoretical comprehension, and practical knowledge in order that they are prepared to become the next generation of leaders in the sport industry.

The degree leads to a wide variety of career choices. Sport management graduates work in school, university and college settings as athletic administrators, public relations/marketing directors, or in professional or amateur sports areas.

This program requires completion of a culminating experience or internship-related project.

All CMU masters-level graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, information literacy, and ethical reasoning. In addition to these campus-wide student learning outcomes, a graduate of this program will be able to:

1. Relate advanced principles of the sport management field. (Specialized Knowledge)
2. Incorporate a variety of oral and written business and professional communications skills. (Communication Fluency)
3. Practice ethical behavior in the workplace. (Ethical Reasoning)
4. Incorporate advanced sport management principles and theories. (Specialized Knowledge)
5. Integrate education in the workplace. (Specialized Knowledge)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Graduate Degree Requirements

The following institutional requirements apply to all CMU graduate-level degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Graduate certificates consist of a minimum of 5 credit hours. Master's degrees consist of a minimum of 30 credit hours. Doctoral degrees consist of a minimum of 60 credit hours.
- All credits in a graduate program must be minimally at the 500-level.
- At least fifty percent of the credit hours must be taken at CMU.
- Students must achieve a 3.00 cumulative GPA or higher in all CMU coursework.
- Students may not apply coursework with a grade lower than a "B" toward graduation requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Graduate Degree Requirements (p. 87)" in this catalog for a complete list of graduation requirements.
- All policies for graduate degrees are outlined in the Graduate Policies and Procedures Manual, Capstone Guidelines Manual, and Thesis and Dissertation Guidelines Manual, all of which are provided on the Graduate Studies website.

Program Specific Requirements

(30 semester hours)

In addition to coursework, this program requires completion of a culminating experience or internship-related project.

Code	Title	Semester Credit Hours
Sport Management Core Courses		
KINE 500	Facility and Equipment Management in Sport and Fitness	3
KINE 501	Research Methods	3
KINE 502	Sport Marketing	3
KINE 510	Event and Program Management in Sport and Fitness	3
KINE 520	Management Policies and Regulations in Sport and Fitness	3
KINE 535	Sport in Society	3
KINE 542	Sport Law and Ethics	3
KINE 545	Sport Finance	3
KINE 550	Contemporary Issues in Sport Management	3
KINE 599	Internship	3
Total Semester Credit Hours		**30**

Code	Title	Semester Credit Hours
Final Requirement		
Successful completion of one of following. Please see your advisor to complete this requirement.		
Culminating Experience		
Internship-Related Project		

Suggested Course Plan

First Year

Fall Semester First Mod		**Semester Credit Hours**
KINE 501	Research Methods	3
KINE 550	Contemporary Issues in Sport Management	3
	Semester Credit Hours	**6**
Fall Semester Second Mod		
KINE 542	Sport Law and Ethics	3
KINE 535	Sport in Society	3
	Semester Credit Hours	**6**
Spring Semester First Mod		
KINE 500	Facility and Equipment Management in Sport and Fitness	3
KINE 502	Sport Marketing	3
	Semester Credit Hours	**6**
Spring Semester Second Mod		
KINE 510	Event and Program Management in Sport and Fitness	3
KINE 520	Management Policies and Regulations in Sport and Fitness	3
	Semester Credit Hours	**6**
Summer Semester		
KINE 545	Sport Finance	3
KINE 599	Internship	3
	Semester Credit Hours	**6**
	Total Semester Credit Hours	**30**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the “Intent to Graduate” form to the Registrar’s Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's “Intent to Graduate” does not automatically move to a later graduation date.

Sport Management (BS)

Degree: Bachelor of Science
Major: Sport Management
Program Code: 3147

The Bachelor of Science in Sport Management prepares students to enter the world of sport business or pursue a graduate degree. The Sport Management degree provides an overview of the history and role of sport in society, and covers topics such as leadership and ethics, governance and communication, and legal considerations in sport operations. Students will also obtain business administration skills through courses in accounting, marketing, economics, and business information technology.

Opportunities for college graduates with sport management education and experience are very diverse and challenging. As sport has evolved into an integral part of the American culture, the operations of sports programs have become more sophisticated and complex. With an understanding of the intricacies of sport activities and knowledge of effective business practices, graduates will be prepared to oversee sport programs and facilities. Sport Management positions are found in a variety of settings including schools, colleges, and universities, public and private agencies, government, and the military.

For more information on what you can do with this major, visit Career Services’ What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Critically evaluate the historical, socio-cultural, and philosophical aspects of sport. (Quantitative Fluency)
2. Apply fundamental concepts of management, administration, marketing, finance, and economics to sport organizations. (Applied Learning)
3. Construct codes of personal ethics and apply professional codes of ethics to a sport setting. (Critical Thinking)
4. Apply skill in interpersonal and organizational communication, to the mass media, in both print and electronic medium. (Communication Fluency)
5. Explain the relationships between sport and state/federal legislation, the court system, contract law, tort liability, agency law, antitrust law, constitutional law and collective bargaining. (Critical Thinking)
6. Articulate the implications of the various agencies that govern sport at the professional, collegiate, high school, and amateur levels. (Specialized Knowledge)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for

your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 113	College Algebra-GTMA1 [2]	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [3]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

1. Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.
2. This is a 4 credit course. 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.
3. 7 semester hours, one course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select two Activity courses		2
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**7**

1. Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(9 semester hours)

Code	Title	Semester Credit Hours
MARK 231	Principles of Marketing	3
MANG 201	Principles of Management	3
ACCT 201	Principles of Financial Accounting	3
Total Semester Credit Hours		**9**

Program Specific Degree Requirements

(52 semester hours, must pass all courses with a grade of "C" or higher and maintain a 2.5 GPA or higher in coursework in this area.)

Code	Title	Semester Credit Hours
CISB 101	Business Information Technology	3
ECON 201	Principles of Macroeconomics-GTSS1	3
ECON 202	Principles of Microeconomics-GTSS1	3
KINE 200	Foundations of Kinesiology	3
KINE 205	Introduction to Sport Management	3
KINE 334	Sport Management	3
KINE 335	Sport in Society	3
KINE 340	Sport Operations	3
KINE 350	Leadership and Ethics in Sport	3
KINE 342	Sport Law and Recreation Risk Management	3
KINE 345	Survey of Economics and Finance in Sport	3
KINE 402	Sport Marketing	3
KINE 406	Governance and Communication in Sport	3
KINE 494A	Sport Management Senior Seminar	1
KINE 499	Internship	12
Total Semester Credit Hours		**52**

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total hours to 120 hours. 21 semester hours, 3 additional upper division hours will be needed.

Code	Title	Semester Credit Hours
MATH 113	College Algebra-GTMA1	1
Select additional electives		20
Total Semester Credit Hours		**21**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
KINE 100	Health and Wellness	1
KINE 200	Foundations of Kinesiology	3
KINE 205	Introduction to Sport Management	3
Essential Learning - Social and Behavioral Science		3
Essential Learning - History		3
	Semester Credit Hours	**16**

Spring Semester		
ENGL 112	English Composition II-GTCO2	3
CISB 101	Business Information Technology	3
Essential Learning - Humanities		3
Essential Learning - Fine Arts		3
MATH 113	College Algebra-GTMA1	4
	Semester Credit Hours	**16**
Second Year		
Fall Semester		
ECON 201	Principles of Macroeconomics-GTSS1	3
Essential Learning - Social and Behavioral Science		3
Electives (three credit hours)		3
KINA Activity		1
Essential Learning - Natural Science		3
ACCT 201	Principles of Financial Accounting	3
	Semester Credit Hours	**16**
Spring Semester		
ECON 202	Principles of Microeconomics-GTSS1	3
MARK 231	Principles of Marketing	3
MANG 201	Principles of Management	3
Essential Learning - Natural Science with Lab		4
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
	Semester Credit Hours	**17**
Third Year		
Fall Semester		
KINE 342	Sport Law and Recreation Risk Management	3
KINE 334	Sport Management	3
KINE 345	Survey of Economics and Finance in Sport	3
Electives (six credit hours)		6
	Semester Credit Hours	**15**
Spring Semester		
KINE 335	Sport in Society	3
KINE 340	Sport Operations	3
KINE 350	Leadership and Ethics in Sport	3
KINE 402	Sport Marketing	3
Electives (three credit hours)		3
	Semester Credit Hours	**15**
Fourth Year		
Fall Semester		
KINE 406	Governance and Communication in Sport	3
KINE 494A	Sport Management Senior Seminar	1
KINA Activity		1
Electives (eight credit hours)		8
	Semester Credit Hours	**13**
Spring Semester		
KINE 499	Internship	12
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**120**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Sports Management, Liberal Arts (AS)

Degree: Associate of Science
Major: Liberal Arts
Emphasis: Sport Management
Program Code: 2140

The Associate of Science (A.S.) degree is designed for students who intend to continue their education and obtain a baccalaureate degree. The degree program includes the Colorado Statewide General Education Core and meets the lower-division general education requirements at most public institutions in Colorado. Graduates of this program may obtain entry-level positions in sport management or continue to pursue their bachelor-level education to obtain eventual higher-level positions related to sport management, business, or kinesiology.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Critically evaluate the historical, socio-cultural, and philosophical aspects of sport. (Quantitative Fluency)
2. Identify fundamental concepts of management, administration, marketing, finance, and economics to sport organizations. (Applied Learning, Specialized Knowledge)

3. Construct codes of personal ethics and apply professional codes of ethics to a sport setting. (Critical Thinking)
4. Apply skill in interpersonal and organizational communication, to the mass media, in both print and electronic medium. (Communication Fluency)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU or CMU Tech Associate of Science (AS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours total.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade of "C" or higher must be earned in all Essential Learning courses in order to be accepted for transfer under the Colorado Core Transfer Consortium General Education curriculum or gtPathways, Colorado's guaranteed transfer program.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 15 semester credit hours for an associate of science degree. A maximum of 6 of the 15 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 113	College Algebra-GTMA1 [2]	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [3]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

1 Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.
2 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.
3 7 semester hours, one course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Total Semester Credit Hours		**2**

Program Specific Degree Requirements

(21 semester hours, must maintain a 2.0 cumulative GPA or higher in coursework in this area.)

Code	Title	Semester Credit Hours
ACCT 201	Principles of Financial Accounting	3
CISB 101	Business Information Technology	3
KINE 200	Foundations of Kinesiology	3
KINE 205	Introduction to Sport Management	3
MANG 201	Principles of Management	3
MARK 231	Principles of Marketing	3

ECON 201	Principles of Macroeconomics-GTSS1	3
Total Semester Credit Hours		**21**

General Electives

All college level courses, not listed above, that will bring your total semester hours to 60 hours. 6 semester hours.

Code	Title	Semester Credit Hours
MATH 113	College Algebra-GTMA1	1
Select additional electives		5
Total Semester Credit Hours		**6**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
KINE 205	Introduction to Sport Management	3
MATH 113	College Algebra-GTMA1	4
Essential Learning - Natural Science without lab		3
KINE 100	Health and Wellness	1
Wellness Requirement - Activities Course		1
	Semester Credit Hours	**15**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
ACCT 201	Principles of Financial Accounting	3
Essential Learning - Natural Science with lab		4
Essential Learning - History		3
Essential Learning - Humanities		3
	Semester Credit Hours	**16**
Second Year		
Fall Semester		
Essential Learning - Social and Behavioral Sciences		3
KINE 200	Foundations of Kinesiology	3
ECON 201	Principles of Macroeconomics-GTSS1	3
Essential Learning - Fine Arts		3
Elective		3
	Semester Credit Hours	**15**
Spring Semester		
MARK 231	Principles of Marketing [1]	3
Essential Learning - Social and Behavioral Science		3
MANG 201	Principles of Management	3
CISB 101	Business Information Technology	3
Elective		2
	Semester Credit Hours	**14**
	Total Semester Credit Hours	**60**

[1] Students that intend to continue with Colorado Mesa University should take ESSL 290 and ESSL 200 during the final semester of their Associate of Science work.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Sport Management (Minor)

Minor: Sport Management
Program Code: M103

The minor in Sport Management provides a strong platform for students to combine their interests in business with the business of sports. Students will explore subject areas which include: principles of management, organization/administration/legal considerations, marketing, governance and communication, sport law and risk management, leadership, and ethics. This minor could complement business or mass communications majors.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option

prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(24 semester hours)

Code	Title	Semester Credit Hours
MARK 231	Principles of Marketing	3
MANG 201	Principles of Management	3
KINE 205	Introduction to Sport Management	3
KINE 350	Leadership and Ethics in Sport	3
KINE 342	Sport Law and Recreation Risk Management	3
KINE 340	Sport Operations	3
or KINE 401	Organization, Management, and Legal Liabilities for Youth Fitness Programs	
KINE 402	Sport Marketing	3
or MARK 402	Sport Marketing	
KINE 406	Governance and Communication in Sport	3
Total Semester Credit Hours		**24**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the "Intent to Graduate" form.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Sports Medicine

Program Description

Students enrolled in the Sports Medicine certificate program should have a strong interest in the prevention, evaluation, and treatment of injuries to the physically active. Students will explore subject areas that include risk management, prevention and evaluation of medical and musculoskeletal conditions, therapeutic modalities, therapeutic exercise in rehabilitation, and pharmacology, with the option to deepen their knowledge in anatomy or conduct research. This program aims to advance the knowledge base of a paramedic and better prepare students enrolled in a degree program to work in a sports medicine environment.

Contact Information

Department of Kinesiology
Maverick Center 237B
970.248.1635

Programs of Study Certificates

- Sports Medicine (Professional Certificate) (p. 773)

Sports Medicine (Professional Certificate)

Award: Professional Certificate
Program of Study: Sports Medicine
Program Code: 1705

Students enrolled in the Sports Medicine certificate program should have a strong interest in the prevention, evaluation, and treatment of injuries to the physically active. Students will engage in practical experiences that will help them towards the possibility of a future career in Athletic Training while being exposed to Occupational Therapy, Physical Therapy, and Physician Assistant Studies. Students will explore subject areas that include risk management, prevention and evaluation of medical and musculoskeletal conditions, therapeutic modalities, therapeutic exercise in rehabilitation, and pharmacology. This program aims to advance the knowledge base of a paramedic and better prepare students enrolled in a degree program to work in a sports medicine environment.

Important information about this program:

- 12 semester hours for the Sports Medicine Professional Certificate.
- 2.00 cumulative GPA or higher in the certificate is required.
- CPR/First Aid Certification is a graduation requirement for this certificate.
- Students are required to attend one Athletic Training class session and one class session from either Occupational Therapy, Physical Therapy, or Physician Assistant Studies to graduate.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, critical thinking, and personal and social responsibility. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Identify the general medical or musculoskeletal pathology present based on signs, symptoms, and special tests outcomes. (Critical Thinking)
2. Implement therapeutic interventions and pharmacological interventions appropriately and according to the needs of the patient. (Specialized Knowledge)
3. Practice clinically in accordance with knowledge gained in courses taken. (Personal and Social Responsibility)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU Professional Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Primarily 300-400 level courses.
- At least fifty percent of the credit hours must be taken at CMU.
- 2.00 cumulative GPA or higher in all CMU coursework.
- A grade lower than "C" in the program of study will not be counted toward meeting the certificate's requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(12 semester hours, must earn a grade of "C" or better in each course.)

Additional notes about requirements for completion of this degree:

- CPR/First Aid Certification is a graduation requirement for this certificate.

- Students are required to attend one Athletic Training class session and one class session from either Occupational Therapy, Physical Therapy, or Physician Assistant Studies to graduate.

Code	Title	Semester Credit Hours
KINE 330	Prevention and Evaluation of Injuries to the Physically Active	3
KINE 420	Therapeutic Interventions	3
KINE 430	Medical Conditions and Pharmacology in the Physically Active	3
KINE 440	Clinical Anatomy [2,1]	3
or KINE 487	Structured Research	
Total Semester Credit Hours		**12**

[1] Must take 3 credits of KINE 487 if chosen. KINE 303/KINE 303L, KINE 213 and BIOL 209/BIOL 209L are prerequisites to KINE 487

[2] KINE 309 is a prerequisite of KINE 440

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
KINE 330	Prevention and Evaluation of Injuries to the Physically Active	3
	Semester Credit Hours	**3**
Spring Semester		
KINE 420 or KINE 430	Therapeutic Interventions or Medical Conditions and Pharmacology in the Physically Active	3
	Semester Credit Hours	**3**
Second Year		
Fall Semester		
KINE 430 or KINE 420	Medical Conditions and Pharmacology in the Physically Active or Therapeutic Interventions	3
	Semester Credit Hours	**3**
Spring Semester		
KINE 440 or KINE 487	Clinical Anatomy or Structured Research	3
	Semester Credit Hours	**3**
	Total Semester Credit Hours	**12**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Surgical Technology

Program Description

This program prepares entry-level surgical technologists who are competent in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains to enter the profession. Students work in surgical operations areas under the supervision of surgeons, registered nurses, or other surgical personnel. The Surgical Technology program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC/STSA).

Coursework for an Associate of Applied Science degree is required prior to application to the program. Graduates of the program are eligible to take the certification examination given by the National Board of Surgical Technology and Surgical Assisting (NBSTSA). The program requires both classroom and clinical time as described in the course syllabi. Clinical placements will be at surgical site affiliations in western Colorado.

This program requires an admission process to the program in addition to general admission to CMU. Students may apply to the Surgical Technology program during the last semester of the required pre-requisite courses. Please contact the Department of Health Sciences for further information.

Contact Information

Department of Health Sciences
Health Sciences 101
970.248.1398

Programs of Study

Associates

- Surgical Technology (AAS) (p. 775)

Surgical Technology (AAS)

Degree: Associate of Applied Science
Major: Surgical Technology
Program Code: 1651

The Associates of Applied Science in Surgical Technology Program is designed to cover both the academic and clinical skills necessary to perform as a surgical technologist. The program begins fall semester of each year. Prerequisite courses, including Essential Learning courses, are completed in year one prior to admission to the professional portion (year two) of the program. The application process occurs in the second semester of the first year. Once accepted to the program, the second year prepares students to work as surgical technologists and assist in surgical operations.

Surgical technologists work as members of a healthcare team alongside surgeons, registered nurses, and other health care workers. They prepare operating rooms, arrange equipment, and help doctors during surgeries. Students are prepared to work in a variety of surgical settings. A surgical technologist's responsibilities include preparing patients for surgery, washing and disinfecting incision sites, positioning patients on the operating table, covering patients with sterile drapes, and transporting patients to and from the operating room. Surgical technologists prepare sterile solutions and medications used in surgery and check that all surgical equipment is working properly. They help the surgical team put on sterile gowns and gloves. During operations, surgical technologists pass instruments and supplies to surgeons and first assistants. They hold retractors and may hold internal organs in place during procedures. Surgical technologists may handle specimens taken for laboratory analysis. Surgical technologists who take and pass the certifying examination offered by the NBSTSA (National Board for Surgical Technology and Surgical Assisting) are certified and authorized to use the initials CST to designate their status as Certified Surgical Technologists.

For more information, visit Career Services' What to Do with a Major? resource.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Describe the scope and breadth of surgical technology and related skills using evidence-based resources. (Specialized Knowledge/ Applied Learning, Critical Thinking)
2. Calculate therapeutic interventions for selected patient populations. (Quantitative Fluency)
3. Summarize discipline-specific case presentations to professionals and peers. (Communication Fluency)
4. Interpret administrative and clinical policies to advocate for patient safety during surgical procedures. (Personal and Social Responsibility)
5. Translate discipline-specific concepts into clinical surgical practice. (Information Literacy)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A course may only be used to fulfill one requirement for each degree/ certificate.
- No more than six semester hours of independent study courses can be used toward the degree.

- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this program:

- 65 semester hours total for the AAS, Surgical Technology.

Essential Learning Requirements

(16 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
Communication		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics		
MATH 113	College Algebra-GTMA1	4
Other Essential Learning Core Courses		
PSYC 150	General Psychology-GTSS3	3
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
Total Semester Credit Hours		**16**

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one KINA Activity course		1
Total Semester Credit Hours		**2**

Foundation Courses

(12 semester hours)

Code	Title	Semester Credit Hours
BIOL 209	Human Anatomy and Physiology I	3
BIOL 209L	Human Anatomy and Physiology I Laboratory	1
BIOL 210	Human Anatomy and Physiology II	3
BIOL 210L	Human Anatomy and Physiology II Laboratory	1
BIOL 241	Pathophysiology	4
Total Semester Credit Hours		**12**

Program Specific Degree Requirements

(35 semester hours, must maintain a 2.00 cumulative GPA or higher in coursework in this area.)

- Surgical Technology (SUTE) courses must be completed in sequence and may only be taken after acceptance into the program.

Code	Title	Semester Credit Hours
SUTE 200	Medical Terminology in Surgical Technology	3
SUTE 202	Fundamentals in Surgical Technology	4
SUTE 202L	Fundamentals in Surgical Technology Laboratory	3
SUTE 206	Pharmacology for Surgical Technology	3
SUTE 210	Safety and Equipment	3
SUTE 212	Surgical Procedures and Instrumentation I	4
SUTE 212L	Surgical Procedures and Instrumentation I Laboratory	2
SUTE 218	Surgical Procedures and Instrumentation II	4
SUTE 220	Surgical Clinical I	3
SUTE 230	Surgical Clinical II	3
SUTE 240	Surgical Clinical III	3
Total Semester Credit Hours		**35**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
MATH 113	College Algebra-GTMA1	4
BIOL 209	Human Anatomy and Physiology I	3
BIOL 209L	Human Anatomy and Physiology I Laboratory	1
KINE 100	Health and Wellness	1
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
	Semester Credit Hours	**15**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
BIOL 210	Human Anatomy and Physiology II	3
BIOL 210L	Human Anatomy and Physiology II Laboratory	1
BIOL 241	Pathophysiology	4
PSYC 150	General Psychology-GTSS3	3
Select one KINA Activity course		1
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
SUTE 200	Medical Terminology in Surgical Technology	3

SUTE 202	Fundamentals in Surgical Technology	4
SUTE 202L	Fundamentals in Surgical Technology Laboratory	3
SUTE 206	Pharmacology for Surgical Technology	3
SUTE 210	Safety and Equipment	3
	Semester Credit Hours	**16**
Spring Semester		
SUTE 212	Surgical Procedures and Instrumentation I	4
SUTE 212L	Surgical Procedures and Instrumentation I Laboratory	2
SUTE 218	Surgical Procedures and Instrumentation II	4
SUTE 220	Surgical Clinical I	3
SUTE 230	Surgical Clinical II	3
	Semester Credit Hours	**16**
Summer Semester		
SUTE 240	Surgical Clinical III	3
	Semester Credit Hours	**3**
	Total Semester Credit Hours	**65**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Sustainability Practices

Program Description

"Sustainability" is a way of living that meets the needs of the present without compromising the ability of future generations to meet their own needs. In order to achieve sustainability, we must examine our approach to energy, food, shelter, transportation and other aspects of everyday life. Can we continue our current approach indefinitely? What changes need to occur to make our approach sustainable? What can we do to make those changes?

Through courses required for the certificate in sustainability practices, students learn the principles of sustainability along with specific ways to implement them. Anyone seeking to understand and practice this approach will benefit from completion of the program. For some, the program can serve as a first step toward a more in-depth knowledge that may lead to a career. This certificate could help professionals to distinguish their business practices, community leaders to better understand future trends in community planning and any student, educator or citizen to make a positive difference in the environment.

Contact Information

Dr. Freddy Witarsa
fwitarsa@coloradomesa.edu
970.248.2037
Department of Physical and Environmental Sciences
Wubben Science 232
970.248.1993

Programs of Study Certificates

- Sustainability Practices (Professional Certificate) (p. 437)

Sustainable Agriculture

Program Description

Sustainable agriculture is a holistic approach to agricultural practices using the principles of ecology – the study of relationships between organisms and their environment. Sustainable practices include an integrated system of plant and animal production practices, often with a long term, site-specific application. These principles are integrated throughout each course of the sustainable agriculture degree, addressing how to enhance environmental quality of food production, while also taking into account the economic viability of farm and ranch operation. Graduates of this Associate of Applied Science degree will be well-prepared for a work place environment with a solid foundation of sustainable agricultural principles, theory-based lectures, and hands-on experiential learning.

Contact Information

CMU Tech
Office of Student Services, Kayenta Hall 102
2508 Blichmann Avenue
970.255.2670

Programs of Study
Associates

- Sustainable Agriculture (AAS) (p. 778)

Sustainable Agriculture (AAS)

Degree: Associate of Applied Science
Major: Sustainable Agriculture
Program Code: 1310

The Sustainable Agriculture curriculum is designed to provide the entrepreneurial and technical skills necessary to manage a profitable, environmentally sound, community based small farm or agricultural business. Students learn the fundamentals of sustainable agriculture, focusing on crop and animal production with farm business. Emphasis is placed on entrepreneurial and practical field training. Students will complete a business plan and an agricultural internship in a sector of the farming industry. Graduates are qualified for employment in a variety of positions associated with sustainable agriculture, including horticultural and livestock operations, wholesale and retail management, nursery operations, and environmental and agricultural education.

This program will provide the student with an understanding of Sustainable Agriculture and its principles of operation and control. The graduate will understand the technical aspects of the work, the responsibilities of the work and the importance of safety in this vitally important career.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Apply business communication using listening, verbal and written and electronic forms that are needed for entry level employment in agriculture. (Communication Fluency)
2. Apply mathematical and applied physics concepts for agriculture science to meet employment requirements. (Quantitative Fluency)
3. Research, evaluate, synthesize and apply information/data relevant to agriculture science careers. (Critical Thinking)
4. Demonstrate knowledge of agriculture terminology, symbols, business practices, and principles and application of technical skills. (Specialized Knowledge)
5. Perform the necessary applied skill sets to fulfill the needs of entry level employment in the agriculture insdustry. (Applied Learning)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Specific to this degree:

- A minimum of 16 hours taken at CMU in no fewer than two semesters.

Essential Learning Requirements

(15 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
Communication		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics		
MATH 108	Technical Mathematics (or higher) [1]	3
Other Essential Learning Core Courses		
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3

Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course	3
Total Semester Credit Hours	**15**

[1] This is a 4 semester credit hour course. 3 credits apply to Essential Learning requirements and 1 credit applies to General Electives.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Total Semester Credit Hours		**2**

Program Specific Degree Requirements

(37 semester hours, must earn a grade of "C" or better in each course.)

Code	Title	Semester Credit Hours
Agriculture Courses		
AGRS 100	Practical Crop Production	3
AGRS 100L	Practical Crop Production Laboratory	1
AGRS 105	Animal Science	3
AGRS 108	Making Compost	3
AGRS 125	Agricultural Machinery and Technology	3
AGRS 205	Farm and Ranch Management	3
AGRS 240	Introduction to Soil Science	3
AGRS 240L	Introduction to Soil Science Laboratory	1
AGRS 260	Plant Propagation	3
AGRS 293	Cooperative Experience/Internship	5
Total Semester Credit Hours		**28**

Code	Title	Semester Credit Hours
Restricted Electives		
Select 9 semester hours of the following. See recommended advising tracks.		9
ACCT 201	Principles of Financial Accounting	
AGRS 110	Integrated Pest Management	
AGRS 118	Farm Structures and Green Houses	
AGRS 208	Agricultural Finance	
AGRS 210	Agricultural Marketing	
AGRS 224	Integrated Ranch Management	
AGRS 225	Feeds and Feeding	
AGRS 230	Farm Animal Anatomy and Physiology	
AGRS 250	Live Animal and Carcass Evaluation	
AGRS 250L	Live Animal and Carcass Evaluation Laboratory	
AGRS 288	Livestock Practicum	
WELD 151	Introduction to Welding	
AGRS 296	Topics:	
CISB 101	Business Information Technology	
Total Semester Credit Hours		**9**

General Electives

(6 semester hours)

Code	Title	Semester Credit Hours
MATH 108	Technical Mathematics	1
Select Additional Electives		5
Total Semester Credit Hours		**6**

Suggested Course Plan
Animal Science Advising Sheet

First Year		
Fall Semester		**Semester Credit Hours**
MATH 108	Technical Mathematics	4
AGRS 100	Practical Crop Production	3
AGRS 100L	Practical Crop Production Laboratory	1
AGRS 125	Agricultural Machinery and Technology	3
AGRS 108	Making Compost	3
	Semester Credit Hours	**14**
Spring Semester		
ENGL 111	English Composition I-GTCO1	3
AGRS 205	Farm and Ranch Management	3
AGRS 105	Animal Science	3
AGRS 260	Plant Propagation	3
Essential Learning - Social Science, Natural Science, Fine Arts, or Humanities		3
	Semester Credit Hours	**15**
Summer Semester		
AGRS 293	Cooperative Experience/Internship	5
	Semester Credit Hours	**5**
Second Year		
Fall Semester		
ENGL 112	English Composition II-GTCO2	3
AGRS 225	Feeds and Feeding	4
AGRS 240	Introduction to Soil Science	3
AGRS 240L	Introduction to Soil Science Laboratory	1
AGRS 288	Livestock Practicum	3
Essential Learning - Social and Behavioral Sciences, Natural Sciences, Fine Arts, or Humanities		3
	Semester Credit Hours	**17**
Spring Semester		
KINA 1XX	Activity	1
KINE 100	Health and Wellness	1
AGRS 210	Agricultural Marketing	3
General Electives (if needed)		2
AGRS 230	Farm Animal Anatomy and Physiology	3
AGRS 250	Live Animal and Carcass Evaluation	1
AGRS 250L	Live Animal and Carcass Evaluation Laboratory	2
	Semester Credit Hours	**13**
	Total Semester Credit Hours	**64**

Crop/Plant Advising Sheet

First Year		
Fall Semester		**Semester Credit Hours**
MATH 108	Technical Mathematics	4
AGRS 100	Practical Crop Production	3
AGRS 100L	Practical Crop Production Laboratory	1
AGRS 125	Agricultural Machinery and Technology	3
AGRS 108	Making Compost	3
	Semester Credit Hours	**14**
Spring Semester		
ENGL 111	English Composition I-GTCO1	3
AGRS 205	Farm and Ranch Management	3
AGRS 105	Animal Science	3
Essential Learning - Social Science, Natural Science, Fine Arts, or Humanities		3
AGRS 260	Plant Propagation	3
	Semester Credit Hours	**15**
Summer Semester		
AGRS 293	Cooperative Experience/Internship	5
	Semester Credit Hours	**5**
Second Year		
Fall Semester		
ENGL 112	English Composition II-GTCO2	3
AGRS 240	Introduction to Soil Science	3
AGRS 240L	Introduction to Soil Science Laboratory	1
General Elective [1]		3
AGRS 110	Integrated Pest Management	3
	Semester Credit Hours	**13**
Spring Semester		
KINA 1XX	Activity	1
KINE 100	Health and Wellness	1
Essential Learning - Social Science, Natural Science, Fine Arts, or Humanities		3
AGRS 118	Farm Structures and Green Houses	3
AGRS 210	Agricultural Marketing	3
General Elective		2
	Semester Credit Hours	**13**
	Total Semester Credit Hours	**60**

[1] AGRS 108 is suggested.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Teacher Education

(See Art (p. 148), Early Childhood Education (p. 344), Education: Teacher Licensure (p. 373), English (p. 418), History (p. 499), Kinesiology (p. 529), Liberal Arts (p. 543), Mathematics (p. 586), Music (p. 626), and Social Science (p. 736) for graduate and undergraduate programs)

Theatre Arts

Program Description

The Theatre program offers rigorous conservatory-style training within a well-rounded liberal arts education at an affordable public school price. The program is constructed to help students meet the rigorous demands of a professional career in theatre and to provide a strong artistic foundation and practical experience. The program is led by a dynamic faculty composed of current and former artistic directors, actors, singers, designers, and dancers with deep connections to top industry professionals from coast to coast.

BFA Acting/Directing students at CMU can expect a full sequence of Stanislavski-based acting classes in addition to training in Shakespeare, voice, speech, acting for the camera, script analysis, movement, stage combat, make-up, dance, and more. Unlike many other undergraduate programs, CMU also offers students the opportunity not only to take directing classes but also direct full productions as part of the performance season. The program is large enough to tackle ambitious projects yet small and flexible enough to tailor to students' needs. Classes are intimate, with a small student-to-faculty ratio, allowing for significant individual attention, and each season's productions are picked specifically for the current class of students. Opportunities to perform begin in the freshman year.

The BFA Music Theatre concentration represents one of the most unique programs offered in Colorado, stressing strong technical foundations in music, theatre, and dance. This approach creates "triple threats" and enhances a young performer's potential for a career in musical theatre. To complement technique courses, students also participate in a wide variety of performance-related assignments. Students develop all disciplines of performance in an intimate and rigorous setting. Individuality and diversity are at the heart of all acting courses from contemporary to "Shakespeare," vocal studies (including jazz, pop, and rock), and dance classes (jazz, tap, and hip hop).

The Dance program at CMU is thriving, offering an array of dance styles, performance opportunities, and travel. Equal emphasis is placed on Modern, Jazz, Ballet, and Hip Hop with course offerings from beginner to advanced levels. The faculty members have professional backgrounds across multiple forms of dance. With three dance concerts a year, Colorado Mesa University faculty and students choreograph and invite visiting guest artists from the professional dance world. Students travel annually to the American College Dance Association and other conferences and engage in local and state outreach. The BA in Dance is constructed to help students meet the rigorous demands of a professional dance career and provide a strong foundation and practical experience for future dance artists.

For our BFA Design/Technology major, we cultivate daring artistic and scholarly pioneers who are poised to be the luminaries our industry demands. CMU strives to promote an environment where students exist as an ensemble of artists who create work together and actively support each other. This is an intimate and rigorous program. We give personalized attention to students, specifically focusing on making them the best versions of themselves. The program accentuates absolute involvement and immersion in our seasons. This deep involvement within a production process prepares students for the rigors and demands of producing theatre well beyond the walls of CMU. Technology in the Moss Performing Arts Center is state-of-the-art. We have a multi-level costume construction and design facility, a spacious scenic construction area, a robust and fully rigged proscenium space, and an experimental black-box-style theatre.

The goal of our Theatre Generalist BA program is to encourage theatre studies for students who may be interested in cultivating a broad range of theatrical skills or who want to pursue theatrical careers outside of performance or design/technology, such as producing, arts administration, teaching, dramaturgy or playwriting. Beginning with the first semester, students follow a curriculum that offers a grounding in the fundamentals while allowing the flexibility to focus or move between dance, theatre, musical theatre, or design/technical theatre options.

Through the theatre minor students may choose courses from a broad range of theatrical endeavors including acting, scenery, costumes, theatre history, theatre teaching, arts management, and dramatic literature. Students will also have the opportunity to gain hands-on experience in the creation of two mainstage shows during the CMU theatre season. The training afforded by the study of theatre is also attractive to many other professions, including teaching, non-profit leadership, human resources, and law.

Special Requirements

Students seeking admission as theatre majors must successfully audition for acceptance into the BFA Acting/Directing, BFA Music Theatre, and BA Dance concentrations. Admission to the University does not guarantee admission into one of these programs. Prospective theatre majors should consult the department's website or contact the department directly for information regarding audition dates and requirements. Prospective students interested in departmental scholarships must audition no later than April 15 of the year they seek admission.

- Students deficient in piano skills will be required to complete three credit hours from MUSA 125, MUSA 130, MUSA 131, and MUSA 230. These courses may be taken as lower division electives or Musical Theatre Support Courses .
- Students deficient in theory skills will be required to complete MUSA 113 before taking MUSA 114. MUSA 113 may be taken as a lower division elective or a Musical Theatre Support Course.

Contact Information

Department of Theatre Arts
Moss Performing Arts Center 141
970.248.1242

Programs of Study Bachelors/Minors

- Acting/Directing, Theatre Arts (BFA) (p. 782)
- Design/Technology, Theatre Arts (BFA) (p. 788)
- Music Theatre, Theatre Arts (BFA) (p. 785)
- Theatre (Minor) (p. 795)
- Theatre Arts, General (BA) (p. 792)

Acting/Directing, Theatre Arts (BFA)

Degree: Bachelor of Fine Arts
Major: Theatre Arts
Concentration: Acting/Directing
Program Code: 3265

The Department of Theatre Arts offers one of the most successful theatre training degree programs in Colorado. Theatre Arts majors choose from three distinct concentrations in the Bachelor of Fine Arts degree (Acting/Directing, Music Theatre, or Design/Technology), the Bachelor of Arts degree (Theatre Arts), or the Bachelor of Fine Arts degree in Dance. Students acquire a sound understanding of the performing arts in state-of-the-art facilities.

The Acting/Directing concentration is constructed to help students meet the rigorous demands of a professional acting career and provide a strong foundation and practical experience for future directors. Beginning with the first semester, students enroll in performance courses taught by academically and professionally experienced faculty. Unlike larger institutions, acting opportunities in all productions at Colorado Mesa University are open to motivated and talented freshmen. In acting courses, students are exposed to techniques and approaches that are industry standards today. Training is grounded in Stanislavski, Cohen, and Chekhov. Voice and movement courses are complemented by performance opportunities in student in faculty directed productions.
Acting students also audition for one act plays directed by directing students each year. Experimental and other challenging productions are offered at the Mesa Experimental Theatre.

Colorado Mesa is strategically located at the hub of a circle of important entertainment centers such as Aspen, Telluride, Moab, and Park City, Utah. There are regional theatres of international repute within driving distance, such as the Utah Shakespeare Festival, the Denver Center for the Performing Arts, and the Colorado Shakespeare Festival. There is a thriving theatrical scene in Grand Junction that offers opportunities for summer employment, including CMUs own Mesa Repertory Theatre. At Colorado Mesa, we are committed to the philosophy of training theatrical entrepreneurs. We offer low teacher-to-student ratios so that personal attention and mentoring are possible. Our many graduates in the industry have informed us that Colorado Mesa´s approach was invaluable.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Communicate verbally contemporary and enduring concepts concerning Human Culture through participation and/or observation of the performing arts and speech. (Specialized Knowledge/Communication)
2. Communicate non-verbally contemporary and enduring concepts concerning Human Culture through participation and/or observation of the performing arts and speech. (Specialized Knowledge/Communication)
3. Create progressively more challenging projects through the use of intellectual and/or practical skills. (Applied Learning, Information Literacy)
4. Demonstrate teamwork and problem solving skills through collaboration and cooperation on creative projects. (Critical Thinking, Personal and Social Responsibility)
5. Demonstrate the knowledge, skills, and versatility of the discipline from conceptualization to application. (Applied Learning, Critical Thinking)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for

your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 110	Mathematical Investigations-GTMA1	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [2]		
Select one Natural Sciences course with a lab		4
Select one Natural Sciences course		3
Total Semester Credit Hours		**31**

[1] Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

[2] One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(18 semester hours, Theatre courses must be completed prior to the student's junior year)

Code	Title	Semester Credit Hours
THEA 130	Script Analysis	3
THEA 153	Acting I: Beginning Acting	3
SPCH 112	Acting III: Voice and Diction	3
Select six hours from the following:		6
THEA 102	Introduction to Theatre Technology: Stagecraft	
THEA 103	Introduction to Theatre Technology: Costume	
THEA 104	Introduction to Theatre Technology: Lighting	
THEA 105	Introduction to Theatre Technology: Sound Technology	
Select one class in a foreign language [1]		3
Total Semester Credit Hours		**18**

[1] Must receive a grade of "C" or better.

Program Specific Degree Requirements

(58 semester hours, must maintain a 2.0 cumulative GPA or higher in coursework in this area.)

Code	Title	Semester Credit Hours
Core Courses		
THEA 142	Make-up	3
THEA 145	Introduction to Dramatic Literature-GTAH1	3
THEA 156	Acting II: Contemporary Scenework	3
THEA 218	Play Production [1]	1
THEA 218	Play Production [1]	1
THEA 231	Theatre History I: 400 BCE to 1642 CE	3
THEA 232	Theatre History II: 1642 CE to Present	3
THEA 253	Acting IV: Stage Movement	3
THEA 256	Auditions	3
THEA 353	Advanced Acting: Styles in Acting	3
THEA 381	Directing I	3
THEA 401	Career Preparation	3
THEA 418	Play Production [1]	1
THEA 418	Play Production [1]	1
THEA 454	Acting V: Shakespeare	3
THEA 494	Performance Seminar: Acting/Directing and Musical Theatre Capstone	3
Advanced Acting		
Select 9 semester hours of the following:		9
THEA 300	Advanced Acting: Stage Combat	
THEA 354	Advanced Acting: The Meisner Approach	
THEA 356	Advanced Acting: Dialects	
THEA 369	Improvisation	
THEA 453	Advanced Acting: Acting for the Camera	
THEA 459	Advanced Acting: Chekhov Technique	
Theatre Options		
Select six semester hours of the following:		6
THEA 322	Stage Management	
THEA 345	World Drama	
THEA 380	Playwriting I	
THEA 382	Directing II	
THEA 411	American Drama	
THEA 412	Contemporary Drama	

ENGL 355	Shakespeare	
Performance Options		
Select three semester hours of the following: One hour must be Upper Division.		3
THEA 220	Technical Performance	
THEA 420	Technical Performance	
THEA 248	Drama Performance	
THEA 348	Drama Performance	
THEA 448	Drama Performance	
DANC 156	Dance Performance	
DANC 256	Dance Performance	
DANC 356	Dance Performance	
DANC 456	Dance Performance	
Total Semester Credit Hours		**58**

[1] Repeat for total of 2 credit hours.

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours, including 40 upper division hours. At least 7 additional semester hours may be needed. 7 hours of upper division may be needed.

Code	Title	Semester Credit Hours
Select electives -- 7 hours of upper division may be needed.		7
Total Semester Credit Hours		**7**

Suggested Course Plan

While the sequencing below culminates in a total of 120-128 semester credit hours, students must complete a minimum of 120 semester credit hours as required for completion of this degree, including satisfactory completion of all required courses. Plan to complete requirements with varying hour options accordingly.

First Year

Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
MATH 110	Mathematical Investigations-GTMA1 (or higher)	3
Essential Learning - History		3
Select one of the following. Do not take the same course twice:		3
THEA 102	Introduction to Theatre Technology: Stagecraft	
THEA 103	Introduction to Theatre Technology: Costume	
THEA 104	Introduction to Theatre Technology: Lighting	
THEA 105	Introduction to Theatre Technology: Sound Technology	
THEA 153	Acting I: Beginning Acting	3
THEA 218	Play Production [1]	0-1
	Semester Credit Hours	**15-16**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
Select one of the following. Do not take the same course twice:		3
THEA 102	Introduction to Theatre Technology: Stagecraft	
THEA 103	Introduction to Theatre Technology: Costume	
THEA 104	Introduction to Theatre Technology: Lighting	
THEA 105	Introduction to Theatre Technology: Sound Technology	
THEA 130	Script Analysis	3
THEA 145	Introduction to Dramatic Literature-GTAH1	3
THEA 156	Acting II: Contemporary Scenework	3
THEA 218	Play Production [1]	0-1
	Semester Credit Hours	**15-16**

Second Year

Fall Semester		
Foundation Course - Foreign Language		3
Essential Learning - Fine Arts		3
Essential Learning - Natural Science		3
KINE 100	Health and Wellness	1
SPCH 112	Acting III: Voice and Diction	3
Performance Option		1
THEA 218	Play Production [1]	0-1
	Semester Credit Hours	**14-15**
Spring Semester		
ESSL 200	Essential Speech	1
ESSL 290	Maverick Milestone	3
Essential Learning - Humanities		3
KINA Activity		1
THEA 218	Play Production [1]	0-1
THEA 253	Acting IV: Stage Movement	3
Theatre Option		3
Performance Option		1
	Semester Credit Hours	**15-16**

Third Year

Fall Semester		
THEA 231	Theatre History I: 400 BCE to 1642 CE	3
THEA 381	Directing I	3
THEA 418	Play Production [1]	0-1
THEA 454	Acting V: Shakespeare	3
Theatre Option		3
Performance Option		1
Essential Learning - Social/Behavioral Sciences		3
	Semester Credit Hours	**16-17**
Spring Semester		
THEA 142	Make-up	3
THEA 232	Theatre History II: 1642 CE to Present	3
THEA 353	Advanced Acting: Styles in Acting	3
THEA 418	Play Production [1]	0-1
Advanced Acting Option		3
Essential Learning - Social/Behavioral Sciences		3
	Semester Credit Hours	**15-16**

Fourth Year

Fall Semester		
THEA 401	Career Preparation	3
THEA 418	Play Production [1]	0-1
Advanced Acting Option		3
Electives		5
Essential Learning - Natural Science with Lab		4
	Semester Credit Hours	**15-16**
Spring Semester		
THEA 353 or THEA 256	Advanced Acting: Styles in Acting or Auditions	3
THEA 418	Play Production [1]	0-1
THEA 494	Performance Seminar: Acting/Directing and Musical Theatre Capstone	3
Advanced Acting Option		3
Electives		6
	Semester Credit Hours	**15-16**
	Total Semester Credit Hours	**120-128**

[1] THEA 218 must be taken for a total of two hours in the first and second year. THEA 418 must be taken for a total of two hours in the third and fourth year.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Music Theatre, Theatre Arts (BFA)

Degree: Bachelor of Fine Arts
Major: Theatre Arts
Concentration: Music Theatre
Program Code: 3266

The Department of Theatre Arts offers one of the most successful theatre training degree programs in Colorado. Theatre Arts majors choose from two distinct concentrations in the Bachelor of Fine Arts degree in Theatre Arts (Acting/Directing or Music Theatre), two concentrations of the BA (Theatre Arts or Design/Technology) or the BFA in Dance and acquire a sound understanding of the performing arts in state-of-the-art facilities.

The Music Theatre concentration provides strong technical foundations in Music, Theatre, and Dance. This approach is to create "triple threats" and enhance the young performer's potential for an exciting career in Musical Theatre. Students begin training with music theory and ear training, private voice instruction, choir and class piano. Acting I and II, Ballet and Tap are also included to complete first year academic requirements. To complement technical courses, students also participate in a wide variety of performance related assignments which include two Main stage productions, Experimental Theatre productions, choral ensembles, dance concerts, student directed one-acts, and technical crew assignments.

Students continue interdisciplinary course work in audition techniques and resume writing, as well as preparing and performing Vocal/Acting auditions and specialty performances throughout their next three years. The Music Theatre concentration offers highly personalized instruction from skilled professors who are seasoned performers, coaches, directors, teachers, and technicians; working graduates cite this as the prime reason for their success in gaining employment in both local and national venues. Music Theatre graduates currently work on Broadway, Off-Broadway, in National Broadway tours, Regional Theatres, dinner theatres, cruise ships, and with Disney and Universal Studios.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Communicate verbally contemporary and enduring concepts concerning Human Culture through participation and/or observation of the performing arts and speech. (Specialized Knowledge/ Communication Fluency)
2. Communicate non-verbally contemporary and enduring concepts concerning Human Culture through participation and/or observation of the performing arts and speech. (Specialized Knowledge/ Communication Fluency)
3. Create progressively more challenging projects through the use of intellectual and/or practical skills. (Applied Learning)
4. Demonstrate teamwork and problem solving skills through collaboration and cooperation on creative projects. (Critical Thinking)
5. Demonstrate the knowledge, skills, and versatility of the discipline from conceptualization to application. (Applied Learning)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 110	Mathematical Investigations-GTMA1	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [2]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

[1] Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

[2] One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(12 semester hours)

Code	Title	Semester Credit Hours
THEA 142	Make-up	3
THEA 153	Acting I: Beginning Acting	3
SPCH 112	Acting III: Voice and Diction	3
One class in a foreign language [1]		3
Total Semester Credit Hours		**12**

[1] Must receive a grade of "C" or higher.

Program Specific Degree Requirements

(58 semester hours, must maintain a 2.0 cumulative GPA or higher in coursework in this area.)

- Students are assessed for piano proficiency upon admission to the Program. Students who need additional preparation to be successful in piano will be required to enroll in MUSA 125: Foundations of Piano. Depending upon level of piano proficiency, students may also take MUSA 130 and MUSA 131. Two of the above courses must be taken and can be counted as lower division electives or Musical Theatre Support Courses.
- Students are required to participate in exit examinations and other programs deemed necessary to comply with the college accountability requirement.

Code	Title	Semester Credit Hours
Core Courses		
THEA 156	Acting II: Contemporary Scenework	3
THEA 218	Play Production	1
THEA 253	Acting IV: Stage Movement	3
THEA 255	Musical Theatre Techniques	3
THEA 341	Musical Theatre History and Literature	3
THEA 355	Music Theatre Repertoire	3
THEA 401	Career Preparation	3
THEA 494	Performance Seminar: Acting/Directing and Musical Theatre Capstone	3
MUSA 114	Theory I-Introduction	3
MUSA 116	Ear Training and Sightsinging I	2
MUSL 137	Voice	1
MUSL 137	Voice	1
MUSL 237	Voice	1
MUSL 237	Voice	1
MUSL 337	Voice	1
MUSL 337	Voice	1
MUSL 437	Voice	1
MUSL 437	Voice	1
THEA 116	Music Theatre Workshop	1
THEA 216	Music Theatre Workshop	1
THEA 316	Music Theatre Workshop	1
THEA 416	Music Theatre Workshop	1
7 Hours of any of the Ballet, Jazz, Tap, or Performance Options MUST be Upper Division.		
Ballet Technique Courses		
Select two courses from the following:		4
DANC 181	Ballet I	
DANC 234	Ballet IIA	
DANC 235	Ballet IIB	
DANC 334	Ballet IIIA	
DANC 335	Ballet IIIB	
DANC 434	Ballet IVA	
DANC 435	Ballet IVB	
Jazz Technique Courses		
Select two courses from the following:		4
DANC 182	Jazz I	
DANC 232	Jazz IIA	
DANC 233	Jazz IIB	
DANC 332	Jazz IIIA	
DANC 333	Jazz IIIB	
DANC 432	Jazz IVA	
DANC 433	Jazz IVB	
Tap Technique Courses		
Select two courses from the following:		4
DANC 184	Tap I	
DANC 236	Tap IIA	
DANC 237	Tap IIB	
DANC 336	Tap IIIA	
DANC 337	Tap IIIB	
DANC 436	Tap IVA	
DANC 437	Tap IVB	
Performance Options		
Select three courses from the following:		3
THEA 220	Technical Performance	
THEA 420	Technical Performance	
THEA 248	Drama Performance	
THEA 348	Drama Performance	
THEA 448	Drama Performance	
DANC 156	Dance Performance	
DANC 256	Dance Performance	
DANC 356	Dance Performance	
DANC 456	Dance Performance	
Music Theatre Support Courses		
Select four Upper Division semester hours from ANY Theatre, Music, or Dance course		4
Total Semester Credit Hours		**58**

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours, including 40 upper division hours. 13 semester hours, additional hours of upper division may be needed.

Code	Title	Semester Credit Hours
Select electives		13
Total Semester Credit Hours		**13**

Suggested Course Plan

First Year

Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
MUSA 114	Theory I-Introduction	3
MUSA 116	Ear Training and Sightsinging I	2
MUSL 137	Voice	1
THEA 153	Acting I: Beginning Acting	3
THEA 218	Play Production [1]	1
DANC - Tap/Jazz/Ballet		2
Performance Option		1
	Semester Credit Hours	**16**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
Essential Learning - History		3
MUSL 137	Voice	1
THEA 116	Music Theatre Workshop	1
THEA 156	Acting II: Contemporary Scenework	3
DANC - Tap/Jazz/Ballet		2
Performance Option		1
	Semester Credit Hours	**14**

Second Year

Fall Semester		
MATH 110	Mathematical Investigations-GTMA1 (or higher)	3

MUSL 237	Voice	1
THEA 255	Musical Theatre Techniques	3
SPCH 112	Acting III: Voice and Diction	3
DANC - Tap/Jazz/Ballet		2
Essential Learning - Social and Behavioral Sciences		3
	Semester Credit Hours	**15**
Spring Semester		
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - Natural Science with Lab		4
KINE 100	Health and Wellness	1
MUSL 237	Voice	1
THEA 216	Music Theatre Workshop	1
THEA 341	Musical Theatre History and Literature	3
Performance Option		1
DANC - Tap/Jazz/Ballet		2
	Semester Credit Hours	**16**
Third Year		
Fall Semester		
MUSL 337	Voice	1
THEA 142	Make-up	3
THEA 253	Acting IV: Stage Movement	3
THEA 355	Music Theatre Repertoire	3
DANC - Tap/Jazz/Ballet		2
Foundation Course - Foreign Language		3
	Semester Credit Hours	**15**
Spring Semester		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Essential Learning - Humanities		3
Essential Learning - Natural Science		3
MUSL 337	Voice	1
THEA 316	Music Theatre Workshop	1
Music Theatre Support Course		2
DANC - Tap/Jazz/Ballet		2
	Semester Credit Hours	**16**
Fourth Year		
Fall Semester		
MUSL 437	Voice	1
THEA 401	Career Preparation	3
Essential Learning - Fine Arts		3
Electives		6
	Semester Credit Hours	**13**
Spring Semester		
THEA 416	Music Theatre Workshop	1
MUSL 437	Voice	1
THEA 494	Performance Seminar: Acting/Directing and Musical Theatre Capstone	3
Music Theatre Support Course		2
KINA Activity		1
Electives		7
	Semester Credit Hours	**15**
	Total Semester Credit Hours	**120**

[1] Fall or Spring Semester.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Design/Technology, Theatre Arts (BFA)

Degree: Bachelor of Fine Arts
Major: Theatre Arts
Concentration: Design/Technology
Program Code: 3269

The Department of Theatre Arts offers one of the most successful theatre training degree programs in Colorado. Theatre Arts majors choose from four distinct concentrations in the Bachelor of Fine Arts degree in Theatre Arts (Acting/Directing, Design/Tech, Dance, or Music Theatre), or a concentration in the BA (Theatre Arts). Students acquire a sound understanding of the performing arts in state-of-the-art facilities.

The BFA in Design/Technology exposes students to the visual and technical aspects of Theatre, including Costume, Lighting, Sound, Scenery, and Stage Management. The first-year centers on courses that develop aesthetic sensitivity and technical proficiency. Subsequent years are devoted to studio work that continues to develop a student's visual storytelling, creative problem solving, and collaborative processes. Coursework focuses on the development of the student as a theatre professional, whether they lean toward technology or design areas, and will include classroom and hands-on production experiences in drafting, rendering, scenic and costume construction and craft work, and other methods of communicating, collaborating, and contributing to the

theatrical production process. The program culminates in a final design or technology project during the fourth year.

Students can expect personalized instruction and supervised "hands-on" design experiences that stretch from designs on paper to fully realized Black Box and Mainstage productions. Graduates of the Design/Technology concentration will have the necessary skills for success in graduate studies or the professional theatre.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Communicate verbally contemporary and enduring concepts concerning Human Culture through participation and/or observation of the performing arts and speech. (Specialized Knowledge/Communication)
2. Communicate non-verbally contemporary and enduring concepts concerning Human Culture through participation and/or observation of the performing arts and speech. (Specialized Knowledge/Communication)
3. Create progressively more challenging projects through the use of intellectual and/or practical skills. (Applied Learning)
4. Demonstrate teamwork and problem solving skills through collaboration and cooperation on creative projects. (Critical Thinking)
5. Demonstrate the knowledge, skills, and versatility of the discipline from conceptualization to application. (Applied Learning)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 110	Mathematical Investigations-GTMA1	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [2]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

[1] Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

[2] One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(18 semester hours, must earn a grade of "C" or better in each course. Students must take Theatre courses prior to their Junior Year.)

Code	Title	Semester Credit Hours
Introduction to Theatre Technology Courses		
Complete three of the following courses:		9
THEA 102	Introduction to Theatre Technology: Stagecraft	
THEA 103	Introduction to Theatre Technology: Costume	
THEA 104	Introduction to Theatre Technology: Lighting	
THEA 105	Introduction to Theatre Technology: Sound Technology	
THEA 130	Script Analysis	3
THEA 150	Fundamentals of Acting	3
THEA 202	Elements of Theatrical Design	3
Total Semester Credit Hours		**18**

Program Specific Requirements

(59 semester hours, must maintain a 2.5 cumulative GPA or higher in coursework in this area, and must earn a grade of "C" or better in all courses.)

Code	Title	Semester Credit Hours
Core Courses		
THEA 145	Introduction to Dramatic Literature-GTAH1	3
THEA 218	Play Production	1
THEA 218	Play Production	1
THEA 231	Theatre History I: 400 BCE to 1642 CE	3
THEA 232	Theatre History II: 1642 CE to Present	3
THEA 313	Rendering for Theatre	3
or THEA 323	Computer Aided Drafting for the Theatre	
THEA 322	Stage Management	3
THEA 333	Art, Architecture and Fashion: Prehistory to the Present	3
THEA 340	Costume Design	3
THEA 342	Sound Design	3
THEA 343	Scene Design	3
THEA 344	Lighting Design	3
THEA 381	Directing I	3
THEA 401	Career Preparation	3
THEA 418	Play Production	1
THEA 418	Play Production	1
THEA 418	Play Production	1
THEA 418	Play Production	1
THEA 445	Senior Tech/Design Capstone	3
or THEA 446	Senior Tech/Design Capstone	
Design/Technology Emphasis Options		
Select 6 credit hours from the following:		*6*
THEA 142	Make-up	
THEA 323	Computer Aided Drafting for the Theatre [1]	
or THEA 313	Rendering for Theatre	
THEA 325	Rigging and Special Effects	
THEA 327	Multimedia Technology for the Theatre	
THEA 360	Advanced Costume Technology	
THEA 496	Topics	
Performance Options		
Select 8 credit hours from the following:		*8*
THEA 220	Technical Performance	
THEA 420	Technical Performance	
THEA 248	Drama Performance	
THEA 348	Drama Performance	
THEA 448	Drama Performance	
DANC 156	Dance Performance	
DANC 256	Dance Performance	
DANC 356	Dance Performance	
DANC 456	Dance Performance	
Total Semester Credit Hours		**59**

[1] THEA 313/THEA 323 may not be double counted from the list of Core Courses.

General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours, including 40 upper-division hours. 6 semester hours, additional upper-division hours may be needed.

Code	Title	Semester Credit Hours
Select electives (see recommendations below)		6
Total Semester Credit Hours		**6**

Code	Title	Semester Credit Hours
Recommended Electives		
ARTE 101	Two-Dimensional Design-GTAH1	3

ARTE 102	Three-Dimensional Design-GTAH1	3
ARTE 115	Art Appreciation-GTAH1	3
ARTE 118	History of Art, Prehistory to Renaissance-GTAH1	3
ARTE 119	History of Art, Renaissance to Present-GTAH1	3
ARTG 112	Graphic Design I	3
ARTG 120	UX Design I	3
ARTG 221	Graphic Design II	3
ARTG 337	Illustration Exploration	3
Any ARTH Course		Varies
ARTS 151	Foundation Drawing I	3
ARTS 152	Foundation Drawing II: Figure Drawing	3
ARTS 252	Mixed Media Drawing	3
ARTT 270	Sculpture I	3
HMGT 101	Travel Industry I	3
HMGT 103	Travel and Tourism Marketing Techniques	3
MANG 410	Effective Workplace Communication	3
MARK 231	Principles of Marketing	3
MARK 332	Promotion	3
MARK 340	Creating Marketing Materials	3
MASS 140	Media Theory Introduction	3
MASS 144	Multimedia Storytelling	3
MASS 251	Mass Media: Advertising and Promotions	3
THEA 499	Internship	1-9
WELD 110	Shielded Metal Arc Welding	4
WELD 151	Introduction to Welding	3
WELD 133	Fabrication & Blueprints for Welders	4

Suggested Course Plan

First Year

Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
THEA 202	Elements of Theatrical Design	3
Introduction to Theatre Technology Course		3
Introduction to Theatre Technology Course		3
Technical, Drama, or Dance Performance		1
KINA Activity		1
	Semester Credit Hours	**14**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
KINE 100	Health and Wellness	1
MATH 110	Mathematical Investigations-GTMA1	3
Essential Learning - Fine Arts		3
Introduction to Theatre Technology Course		3
Technical, Drama, or Dance Performance		1
	Semester Credit Hours	**14**

Second Year

Fall Semester		
THEA 150	Fundamentals of Acting	3
THEA 218	Play Production	1
THEA 231	Theatre History I: 400 BCE to 1642 CE	3
THEA 313 or THEA 323	Rendering for Theatre or Computer Aided Drafting for the Theatre	3
THEA 344	Lighting Design	3
Technical, Drama, or Dance Performance		1
Essential Learning - Natural Science with Lab		4
	Semester Credit Hours	**18**
Spring Semester		
THEA 145	Introduction to Dramatic Literature-GTAH1	3
THEA 218	Play Production	1
THEA 232	Theatre History II: 1642 CE to Present	3.0
THEA 333	Art, Architecture and Fashion: Prehistory to the Present	3
THEA 342	Sound Design	3
Technical, Drama, or Dance Performance		1
Essential Learning - Social and Behavioral Sciences		3
	Semester Credit Hours	**17**

Third Year

Fall Semester		
ESSL 200	Essential Speech	1
ESSL 290	Maverick Milestone	3
THEA 130	Script Analysis	3
THEA 343	Scene Design	3
THEA 381	Directing I	3
THEA 418	Play Production	1
Technical, Drama, or Dance Performance		1
	Semester Credit Hours	**15**
Spring Semester		
THEA 322	Stage Management	3
THEA 340	Costume Design	3
THEA 418	Play Production	1
Technical, Drama, or Dance Performance		1
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - Humanities		3
	Semester Credit Hours	**14**

Fourth Year

Fall Semester		
THEA 401	Career Preparation	3
THEA 418	Play Production	1
General Elective		3
Design/Technology Emphasis Option		3
Technical, Drama, or Dance Performance		1
Essential Learning - Natural Science		3
	Semester Credit Hours	**14**
Spring Semester		
THEA 418	Play Production	1
THEA 446	Senior Tech/Design Capstone	3
General Elective		3
Design/Technology Emphasis Option		3
Technical, Drama, or Dance Performance		1
Essential Learning - History		3
	Semester Credit Hours	**14**
	Total Semester Credit Hours	**120**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Theatre Arts, General (BA)

Degree: Bachelor of Arts
Major: Theatre Arts (General)
Program Code: 3264

The Department of Theatre Arts offers one of the most successful theatre training degree programs in Colorado. Theatre Arts majors choose from three distinct concentrations in the Bachelor of Fine Arts degree in Theatre Arts (Acting/Directing, Music Theatre, or Design/Technology), a BA Theatre Arts (for those desiring a broader approach) or the BA in Dance. Students acquire a sound understanding of the performing arts in state-of-the-art facilities.

The Bachelor of Art primary goal is to encourage general theatre studies for students who may be interested in theatrical careers outside of performance or design/technology, such as producing, arts administration, teaching, dramaturgy, and playwriting. Beginning with the first semester, students follow a curriculum that offers a grounding in the fundamentals while allowing the flexibility to focus or to move between dance, theatre, musical theatre or design/technical theatre options.

Colorado Mesa is strategically located at the hub of a circle of important entertainment centers such as Aspen, Telluride, Moab, and Park City, Utah. There are regional theatres of international repute within driving distance, such as the Utah Shakespeare Festival, the Denver Center for the Performing Arts, and the Colorado Shakespeare Festival. At Colorado Mesa, we are committed to the philosophy of training theatrical entrepreneurs. We offer low teacher-to-student ratios so that personal attention and mentoring are possible. Our many graduates in the industry have informed us that the approach of Colorado Mesa was invaluable.

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU baccalaureate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Communicate verbally contemporary and enduring concepts concerning Human Culture through participation and/or observation of the performing arts and speech. (Specialized Knowledge/Communication)
2. Communicate non-verbally contemporary and enduring concepts concerning Human Culture through participation and/or observation of the performing arts and speech. (Specialized Knowledge/Communication)
3. Create progressively more challenging projects through the use of intellectual and/or practical skills. (Applied Learning)
4. Demonstrate teamwork and problem solving skills through collaboration and cooperation on creative projects. (Critical Thinking)
5. Demonstrate the knowledge, skills, and versatility of the discipline from conceptualization to application. (Applied Learning)
6. Analyze ethical, social, and/or civic challenges and their intersection with the performing arts at the local, national, and global levels. (Personal and Social Responsibility)
7. Find, critically evaluate, and effectively apply relevant sources of information to discipline-specific projects. (Information Literacy)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU baccalaureate degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 120 semester hours minimum.
- Students must complete a minimum of 30 of the last 60 hours of credit at CMU, with at least 15 semester hours in major discipline courses numbered 300 or higher.
- 40 upper-division credits (an alternative credit limit applies to the Bachelor of Applied Science degree).
- 2.00 cumulative GPA or higher in all CMU coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 30 semester credit hours for a

baccalaureate degree. A maximum of 15 of the 30 credits may be for cooperative education, internships, and practica.

- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Essential Learning Requirements

(31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English [1]		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
Mathematics [1]		
MATH 110	Mathematical Investigations-GTMA1	3
History		
Select one History course		3
Humanities		
Select one Humanities course		3
Social and Behavioral Sciences		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences [2]		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
Total Semester Credit Hours		**31**

[1] Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

[2] One course must include a lab.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Essential Learning Capstone [1]		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Total Semester Credit Hours		**6**

[1] Essential Learning Capstone must be taken after completion of the Essential Learning English and Mathematics requirements, and when a student has earned between 45 and 75 hours.

Foundation Courses

(6 semester hours)

Code	Title	Semester Credit Hours
Two consecutive classes in the same foreign language		6
Total Semester Credit Hours		**6**

Program-Specific Degree Requirements

(46 semester hours, must maintain a minimum 2.0 cumulative GPA in coursework in this area.)

Code	Title	Semester Credit Hours
THEA 145	Introduction to Dramatic Literature-GTAH1	3
THEA 150	Fundamentals of Acting	3
Select one course from the following:		3
DANC 115	Dance Appreciation-GTAH1	
FINE 101	The Living Arts-GTAH1	
THEA 141	Theatre Appreciation-GTAH1	
Select two courses from the following:		6
THEA 102	Introduction to Theatre Technology: Stagecraft	
THEA 103	Introduction to Theatre Technology: Costume	
THEA 104	Introduction to Theatre Technology: Lighting	
THEA 105	Introduction to Theatre Technology: Sound Technology	
History		
Select two courses from the following:		6
DANC 315	History and Philosophy of Dance	
THEA 231	Theatre History I: 400 BCE to 1642 CE	
THEA 232	Theatre History II: 1642 CE to Present	
THEA 333	Art, Architecture and Fashion: Prehistory to the Present	
THEA 341	Musical Theatre History and Literature	
Practice		
Select six credit hours from the following:		6
DANC 356	Dance Performance	
DANC 456	Dance Performance	
THEA 348	Drama Performance	
THEA 418	Play Production	
THEA 420	Technical Performance	
THEA 448	Drama Performance	
Career Preparation and Capstone		
THEA 401	Career Preparation	3

THEA 494	Performance Seminar: Acting/Directing and Musical Theatre Capstone	3
Total Semester Credit Hours		**33**

Code	Title	Semester Credit Hours
Restricted Electives		
11 semester hours of 300- or 400- level chosen from THEA, DANC, or SPCH		11
At least 2 semester hours from the following dance, movement, improvisation, and stage combat courses (at least one must be upper-division):		2
DANC 160	Beginning Ballet	
DANC 181	Ballet I	
DANC 234	Ballet IIA	
DANC 235	Ballet IIB	
DANC 334	Ballet IIIA	
DANC 335	Ballet IIIB	
DANC 434	Ballet IVA	
DANC 435	Ballet IVB	
DANC 169	Beginning Modern Dance	
DANC 183	Contemporary Modern I	
DANC 230	Contemporary Modern IIA	
DANC 231	Contemporary Modern IIB	
DANC 330	Contemporary Modern IIIA	
DANC 331	Contemporary Modern IIIB	
DANC 430	Contemporary Modern IVA	
DANC 431	Contemporary Modern IVB	
DANC 174	Beginning Jazz Dance	
DANC 182	Jazz I	
DANC 232	Jazz IIA	
DANC 233	Jazz IIB	
DANC 332	Jazz IIIA	
DANC 333	Jazz IIIB	
DANC 432	Jazz IVA	
DANC 433	Jazz IVB	
DANC 177	Beginning Tap Dance	
DANC 184	Tap I	
DANC 236	Tap IIA	
DANC 237	Tap IIB	
DANC 336	Tap IIIA	
DANC 337	Tap IIIB	
DANC 436	Tap IVA	
DANC 437	Tap IVB	
DANC 180	Beginning Hip Hop Dance	
DANC 250	Dance Improvisation	
THEA 253	Acting IV: Stage Movement	
THEA 300	Advanced Acting: Stage Combat	
Total Semester Credit Hours		**13**

General Electives

All college-level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours. 31 semester hours: 9 -16 semester hours of upper-division may be needed.

Code	Title	Semester Credit Hours
Select electives		31
Total Semester Credit Hours		**31**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
MATH 110	Mathematical Investigations-GTMA1 (or higher)	3
THEA 150	Fundamentals of Acting	3
THEA 102 Introduction to Theatre Technology: Stagecraft and/or THEA 103 Introduction to Theatre Technology: Costume		3
Practice Option		1
KINA Activity		1
	Semester Credit Hours	**14**
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
KINE 100	Health and Wellness	1
Essential Learning - Social and Behavioral Sciences		3
THEA 104 Introduction to Theatre Technology: Lighting and/or THEA 105 Introduction to Theatre Technology: Sound Technology		3
Select one of the following:		3
THEA 141	Theatre Appreciation-GTAH1	
FINE 101	The Living Arts-GTAH1	
DANC 115	Dance Appreciation-GTAH1	
Practice Option		1
	Semester Credit Hours	**14**
Second Year		
Fall Semester		
Essential Learning - Natural Science with Lab		4
Essential Learning - Fine Arts		3
Essential Learning - History		3
Movement Option		1
Foreign Language		3
Practice Option		1
	Semester Credit Hours	**15**
Spring Semester		
Essential Learning - Social and Behavioral Sciences		3
THEA 145	Introduction to Dramatic Literature-GTAH1	3
General Electives		6
Foreign Language		3
Practice Option		1
	Semester Credit Hours	**16**
Third Year		
Fall Semester		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
History Option		3
Restricted Elective - Upper Division		3
General Electives		6
	Semester Credit Hours	**16**

Spring Semester		
Essential Learning - Natural Science		3
Essential Learning - Humanities		3
History Option		3
General Electives		6
Practice Option		1
	Semester Credit Hours	**16**
Fourth Year		
Fall Semester		
THEA 401	Career Preparation	3
General Electives		8
Practice Option		1
Movement Option		1
Restricted Electives-Upper Division		2
	Semester Credit Hours	**15**
Spring Semester		
THEA 494	Performance Seminar: Acting/Directing and Musical Theatre Capstone	3
General Electives		11
	Semester Credit Hours	**14**
	Total Semester Credit Hours	**120**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at http://www.coloradomesa.edu/registrar/graduation.html.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Theatre (Minor)

Minor: Theatre
Program Code: M270

The Department of Theatre Arts is one of the most successful theatre training programs in Colorado. Through the Theatre Minor, students may choose courses from a broad range of theatrical endeavor including: acting, scenery, costumes, theatre history, the teaching of theatre, arts management, and dramatic literature. Students will also have the opportunity to gain hands on experience in the creation of shows in the CMU Theatre season. The training afforded by study of theatre is also attractive to many professions including teaching, human resources, and law.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

Code	Title	Semester Credit Hours
Select nine credit hours from the following:		9
THEA 102	Introduction to Theatre Technology: Stagecraft	
THEA 103	Introduction to Theatre Technology: Costume	
THEA 104	Introduction to Theatre Technology: Lighting	
THEA 105	Introduction to Theatre Technology: Sound Technology	
THEA 202	Elements of Theatrical Design	
THEA 141	Theatre Appreciation-GTAH1	
THEA 142	Make-up	
THEA 145	Introduction to Dramatic Literature-GTAH1	
THEA 231	Theatre History I: 400 BCE to 1642 CE	
THEA 232	Theatre History II: 1642 CE to Present	
THEA 116	Music Theatre Workshop	
THEA 216	Music Theatre Workshop	
THEA 255	Musical Theatre Techniques	
THEA 150	Fundamentals of Acting	
THEA 153	Acting I: Beginning Acting	
THEA 156	Acting II: Contemporary Scenework	
THEA 253	Acting IV: Stage Movement	
THEA 256	Auditions	
THEA 220	Technical Performance	
THEA 248	Drama Performance	
THEA 218	Play Production	
Select six semester hours of the following:		6
THEA 300	Advanced Acting: Stage Combat	
THEA 353	Advanced Acting: Styles in Acting	
THEA 356	Advanced Acting: Dialects	
THEA 453	Advanced Acting: Acting for the Camera	
THEA 454	Acting V: Shakespeare	
THEA 369	Improvisation	
THEA 316	Music Theatre Workshop	
THEA 341	Musical Theatre History and Literature	
THEA 355	Music Theatre Repertoire	
THEA 313	Rendering for Theatre	
THEA 323	Computer Aided Drafting for the Theatre	
THEA 322	Stage Management	
THEA 340	Costume Design	
THEA 342	Sound Design	
THEA 343	Scene Design	
THEA 344	Lighting Design	
THEA 360	Advanced Costume Technology	
THEA 333	Art, Architecture and Fashion: Prehistory to the Present	
THEA 380	Playwriting I	
THEA 376	World's Greatest Films	
THEA 381	Directing I	
THEA 382	Directing II	
THEA 416	Music Theatre Workshop	
THEA 395	Independent Study	
THEA 495	Independent Study	
THEA 396	Topics	
THEA 496	Topics	
THEA 348	Drama Performance	
THEA 448	Drama Performance	
THEA 418	Play Production	
THEA 420	Technical Performance	
Total Semester Credit Hours		**15**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the "Intent to Graduate" form.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

Transportation Services

Program Description

The Transportation Services program covers the theory and fundamentals of operation, troubleshooting, diagnostic testing, and repair of: drive trains, gas and diesel engines, hydraulic and air brakes, alignment, suspension and steering, climate control, electronic body and chassis controls, engine performance, and emission systems, charging and starting systems, hybrid drive systems, and hydraulic and pneumatic systems, safety, technical mathematics, oral and written communication, and leadership skills. The student may choose one or more of five certificates, which can be stacked into an Associate of Applied Science Automotive Service Technician degree, or a certificate that can lead to an Associate of Applied Science degree in Diesel Technology. The focus of the programs is the repair of late-model vehicles, with an emphasis on computer controls.

The program is accredited by the ASE Education Foundation as a Master Automotive Service Technician program. The courses prepare the student to take the Automotive Service Excellence (ASE) certification examinations administered at CMU quarterly.

By successfully completing a technical certificate, an Associate of Applied Science in Transportation Services, or an Associate of Applied Science of Diesel Technology, students will be prepared for careers as automotive/diesel technicians, parts and service distributors, industrial sales representatives, service managers, and business owners in the transportation services industry.

The Associate of Applied Science in Diesel Technology can be fully completed in four semesters.

Special Requirements

Excellent dexterity, eye-hand coordination, and critical thinking are a plus for a technician. Proper selection, care, and safe use of power, hand and diagnostic tools, and equipment are emphasized.

Contact Information

CMU Tech
Office of Student Services, Kayenta Hall 102
2508 Blichmann Avenue
970.255.2670

Programs of Study

Associates

- Advanced Automotive Service Technician, Transportation Services (AAS) (p. 797)
- Diesel Technology, Transportation Services (AAS) (p. 799)

Certificates

- Automotive Service Technician, Transportation Services (Technical Certificate) (p. 802)
- Diesel Mechanics, Transportation Services (Technical Certificate) (p. 804)
- Hybrid Vehicle Technician, Transportation Services (Technical Certificate) (p. 805)
- Light Duty Automotive Technician Foundations I, Transportation Services (Technical Certificate) (p. 807)
- Light Duty Automotive Technician Foundations II, Transportation Services (Technical Certificate) (p. 809)
- Light Duty Automotive Technician, Transportation Services (Technical Certificate) (p. 810)

Advanced Automotive Service Technician, Transportation Services (AAS)

Degree: Associate of Applied Science
Major: Transportation Services
Emphasis: Advanced Automotive Service Technician
Program Code: 1386

In the Associate of Applied Science degree with a major in Transportation Services, and emphasis in Advanced Automotive Service Technician, students learn the fundamentals of electronics, starters, ignition, and charging systems, air conditioning, cooling and heating systems, safety, technical math, use of technical manuals, basic management skills, written and oral communication skills, and leadership. Advanced coursework includes an in-depth study of internal combustion engine disassembly, repair, reassembly, diagnosis and troubleshooting, suspension systems, and alignment and wheel balance. The Advanced Automotive Service Technician emphasis prepares students for careers as automotive technicians, parts and service distributors, industrial sales representatives, service managers, and business owners in the transportation services industry.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Apply Mathematical concepts and practices that are required to properly perform vehicle repair competencies to an (ASE) Automotive Service Excellence standard. (Quantitative Fluency)
2. Evaluate evidence discovered during the diagnosis and troubleshooting of vehicles and apply those finding to strategies to properly repair the vehicle. (Critical Thinking)
3. Describe the scope and application of principle features of the field of study, including core practices in the vehicle repair industry. (Specialized Knowledge)
4. Demonstrate mastery of the current terminology in the Transportation Service industry and generate substantially error-free products or processes that define the duties of a repair technician. (Specialized Knowledge)
5. Perform vehicle repair practices that meet or exceed industry standards as defined by (ASE) Automotive Service Excellence. (Applied Learning)
6. Demonstrate personal and professional ethical behavior as applied to the industry. (Applied Learning)
7. Define the legal and ethical standards required of the vehicle repair industry. (Specialized Knowledge)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Specific to this program:

- 69 semester hours total for the AAS, Transportation Services - Advanced Automotive Service Technician.

Essential Learning Requirements

(15 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
Communication		
ENGL 111	English Composition I-GTCO1	3
Select one of the following courses:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communication	
SPCH 102	Speechmaking	
Mathematics		
MATH 107	Career Math (or higher)	3
Other Essential Learning Core Courses		
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
Total Semester Credit Hours		**15**

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
KINA 1XX	Activity Course	1
Total Semester Credit Hours		**2**

Program Specific Degree Requirements

(52 semester hours, must earn a “C” or better in each course.)

- Additional expenses - Students entering the program may be required to purchase or have hand tools and appropriate clothing and safety gear with a total cost of approximately $2500.00. This does not include cost of required textbooks. These costs may vary with student need and brand or quality of tools or equipment purchased. All safety glasses must meet the minimum industry safety standard of Z-87 with side shields.

Code	Title	Semester Credit Hours
Required Courses		
TSTC 100	Introduction to Transportation Services	2
TSTC 101	Vehicle Service and Inspection	3
TSTC 130	Electrical I	2
TSTC 160	Electrical II	2
TSTC 170	Chassis Fundamentals	2
TSTC 171	Brakes I	2
TSTG 120	Industrial Safety Practices	2
TSTG 135	Starting and Charging Systems	2
TSTG 175	Brakes II	2
TSTG 195	Climate Control	4
TSTG 220	Workplace Skills	3
TSTA 245	Manual Drive Trains	4
or TSTA 247	Automatic Drive Train Service	

TSTA 265	Engine Control Services	3
TSTA 267	Body Controls	3
TSTA 275	Alignment and Suspension Service	3
TSTA 286	Hybrid and Alternative Fueled Vehicles	2
TSTA 287	Engine Performance and Emissions	3
Total Semester Credit Hours		**44**

Code	Title	Semester Credit Hours
Restricted Electives		
Select a minimum of 8 semester hours of the following:		8
TSTG 150	Introduction to Fluid Power	
TSTG 215	Engine Reconditioning	
TSTG 240	Job Shop	
TSTG 270	Practical Applications	
TSTG 275	ABS Diagnostics	
TSTD 265	Diesel Engine Controls	
Total Semester Credit Hours		**8**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
TSTC 100	Introduction to Transportation Services	2
TSTC 101	Vehicle Service and Inspection	3
TSTC 170	Chassis Fundamentals	2
TSTC 171	Brakes I (first mod)	2
TSTG 120	Industrial Safety Practices	2
TSTG 175	Brakes II (second mod)	2
ENGL 111	English Composition I-GTCO1	3
KINE 100	Health and Wellness	1
	Semester Credit Hours	**17**
Spring Semester		
TSTC 130	Electrical I (first mod)	2
TSTC 160	Electrical II (second mod)	2
TSTG 195	Climate Control	4
TSTG 220	Workplace Skills	3
MATH 107	Career Math	3
Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
	Semester Credit Hours	**17**
Second Year		
Fall Semester		
Select one of the following:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communication	
SPCH 102	Speechmaking	
TSTA 245 or TSTA 247	Manual Drive Trains or Automatic Drive Train Service	4
TSTA 265	Engine Control Services	3
TSTA 275	Alignment and Suspension Service	3
TSTG 135	Starting and Charging Systems	2
TSTA/D/G - Restrictive Electives (2)		2
	Semester Credit Hours	**17**
Spring Semester		
TSTA 267	Body Controls	3
TSTA 286	Hybrid and Alternative Fueled Vehicles	2
TSTA 287	Engine Performance and Emissions	3
TSTA/D/G - Restricted Electives (6)		6
Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
KINA 1XX		1
	Semester Credit Hours	**18**
	Total Semester Credit Hours	**69**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Diesel Technology, Transportation Services (AAS)

Degree: Associate of Applied Science
Major: Transportation Services
Emphasis: Diesel Technology
Program Code: 1342

In the Associate of Applied Science degree with a major in Transportation Services and emphasis in Diesel Technology, students learn the fundamentals of electronics, starters, ignition, and charging systems; air conditioning, cooling and heating systems; safety; technical math; use of technical manuals; basic management skills; written and oral communication skills; and leadership. Advanced coursework includes an in-depth study of internal combustion engine disassembly, repair, reassembly, diagnosis and troubleshooting; suspension systems; and alignment and wheel balance. The diesel technology emphasis concentrates on on-road trucks and light duty diesel-powered vehicles. Students will be prepared for careers as diesel technicians, parts and service distributors, industrial sales representatives, service managers, and business owners in the transportation services industry.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Apply Mathematical concepts and practices that are required to properly perform diesel vehicle repair competencies to an (ASE) Automotive Service Excellence standard. (Quantitative Fluency)
2. Evaluate evidence discovered during the diagnosis and troubleshooting of diesel vehicles and apply those finding to strategies to properly repair the vehicle. (Critical Thinking, Information Literacy)
3. Describe the scope and application of principle features of the field of study, including core practices in the vehicle repair industry. (Specialized Knowledge, Communication Fluency)
4. Demonstrate mastery of the current terminology in the Transportation Service industry and generate substantially error-free products or processes that define the duties of a diesel repair technician. (Specialized Knowledge)
5. Perform vehicle repair practices that meet or exceed industry standards as defined by (ASE) Automotive Service Excellence. (Applied Learning)
6. Define the legal and ethical standards required of the vehicle repair industry. (Personal and Social Responsibility)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this program:

- 63 semester hours total for the AAS, Transportation Services - Diesel Technology.

Essential Learning Requirements

(15 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
Communication		
ENGL 111	English Composition I-GTCO1	3
Select one of the following courses:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communication	
SPCH 102	Speechmaking	
Mathematics		
MATH 107	Career Math (or higher)	3
Other Essential Learning Core Courses		
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
Total Semester Credit Hours		**15**

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Total Semester Credit Hours		**2**

Program Specific Degree Requirements

(46 semester hours, must earn a "C" or better in each course.)

- Additional expenses - Students entering the program may be required to purchase or have hand tools and appropriate clothing and safety gear with a total cost of approximately $2500.00. This does not include cost of required textbooks. These costs may vary with student need and brand or quality of tools or equipment purchased. All safety glasses must meet the minimum industry safety standard of Z-87 with side shields.

Code	Title	Semester Credit Hours
Required Courses		
TSTC 100	Introduction to Transportation Services	2
TSTC 101	Vehicle Service and Inspection	3
TSTC 130	Electrical I	2
TSTC 160	Electrical II	2
TSTC 171	Brakes I	2
TSTG 120	Industrial Safety Practices	2
TSTG 135	Starting and Charging Systems	2
TSTG 175	Brakes II	2
TSTG 195	Climate Control	4
TSTG 220	Workplace Skills	3
TSTD 177	Air Systems Repair and Service	2
TSTD 265	Diesel Engine Controls	3
TSTD 275	Heavy Duty Suspension	2
TSTD 276	Diesel Aftertreatment and Emission Systems	3
TSTD 280	Hydraulic Systems Service and Repair	3
TSTD 215	Diesel Engine Reconditioning	5
Restricted Electives		
Select 4 semester hours of the following:		4
TSTA 245	Manual Drive Trains [1]	
TSTA 247	Automatic Drive Train Service	
TSTA 265	Engine Control Services	
TSTA 267	Body Controls	
TSTA 286	Hybrid and Alternative Fueled Vehicles	
TSTG 240	Job Shop	
TSTG 270	Practical Applications	
Total Semester Credit Hours		**46**

[1] Suggested for one year AAS.

Suggested Course Plan

Suggested Two-Year Diesel AAS

First Year		
Fall Semester		**Semester Credit Hours**
TSTC 100	Introduction to Transportation Services	2
TSTC 101	Vehicle Service and Inspection	3
TSTC 171	Brakes I (first mod)	2
TSTG 120	Industrial Safety Practices	2
TSTG 175	Brakes II (second mod)	2
TSTG 220	Workplace Skills	3
MATH 107	Career Math	3
	Semester Credit Hours	**17**
Spring Semester		
TSTC 130	Electrical I (first mod)	2
TSTC 160	Electrical II (second mod)	2
KINE 100	Health and Wellness	1
TSTD 280	Hydraulic Systems Service and Repair	3
KINA 1XX		1
Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
ENGL 111	English Composition I-GTCO1	3
	Semester Credit Hours	**15**
Second Year		
Fall Semester		
TSTD 275	Heavy Duty Suspension	2
Select one of the following:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communication	
SPCH 102	Speechmaking	
TSTG 135	Starting and Charging Systems	2
TSTA/G - Restrictive Electives (4)		4
Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
TSTD 177	Air Systems Repair and Service	2
	Semester Credit Hours	**16**
Spring Semester		
TSTG 195	Climate Control	4
TSTD 265	Diesel Engine Controls	3
TSTD 276	Diesel Aftertreatment and Emission Systems	3
TSTD 215	Diesel Engine Reconditioning	5
	Semester Credit Hours	**15**
	Total Semester Credit Hours	**63**

Suggested One-Year Diesel AAS

First Year		
Summer Semester		**Semester Credit Hours**
TSTC 100	Introduction to Transportation Services	2
TSTC 101	Vehicle Service and Inspection	3
ENGL 111	English Composition I-GTCO1	3
MATH 107	Career Math	3
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
KINE 100	Health and Wellness	1
	Semester Credit Hours	**15**
Fall Semester		
TSTC 171	Brakes I (first mod)	2
TSTG 120	Industrial Safety Practices	2

TSTG 135	Starting and Charging Systems	2
TSTG 175	Brakes II (second mod)	2
TSTD 177	Air Systems Repair and Service	2
TSTD 275	Heavy Duty Suspension	2
TSTA/G - Restrictive Electives		3
TSTD 280	Hydraulic Systems Service and Repair	3
	Semester Credit Hours	**18**
Spring Semester		
TSTG 195	Climate Control	4
TSTC 130	Electrical I (first mod)	2
TSTC 160	Electrical II (second mod)	2
TSTD 265	Diesel Engine Controls	3
TSTD 276	Diesel Aftertreatment and Emission Systems	3
TSTG 220	Workplace Skills	3
TSTA/G - Restrictive Electives		1
	Semester Credit Hours	**18**
Second Year		
Summer Semester		
Choose one of the following:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communication	
SPCH 102	Speechmaking (Choose one of the following:)	
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities Course		3
TSTG 215	Engine Reconditioning (TSTD 215)	5
KINA 1XX		1
	Semester Credit Hours	**12**
	Total Semester Credit Hours	**63**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Automotive Service Technician, Transportation Services (Technical Certificate)

Award: Technical Certificate
Program of Study: Transportation Services
Specialization: Automotive Service Technician
Program Code: 1312

Students learn the fundamentals of electronics, starters, ignition, and charging systems, air conditioning, cooling and heating systems, safety, technical math, use of technical manuals; basic management skills, written and oral communication skills, and leadership. Advanced coursework includes an in-depth study of internal combustion engine disassembly, repair, reassembly, diagnosis and troubleshooting, suspension systems, and alignment and wheel balance. Career options include automotive/diesel technician, parts and service distributor, industrial sales representative and service manager.

*Students must complete the Light Duty Technician Technical Certificate before enrolling in this technical certificate. Please contact an advisor for additional information.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Apply Mathematical concepts and practices that are required to properly perform vehicle repair competencies to an (ASE) Automotive Service Excellence standard. (Quantitative Fluency)
2. Evaluate evidence discovered during the diagnosis and troubleshooting of vehicles and apply those finding to strategies to properly repair the vehicle, beyond basic service technician technical knowledge. (Critical Thinking)
3. Describe the scope and application of principle features of the field of study, including core practices in the vehicle repair industry. (Specialized Knowledge, Communication Fluency)
4. Define the legal and ethical standards required of the vehicle repair industry. (Specialized Knowledge)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than “C” will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(39 semester hours)

- Additional Expenses – Students entering the program may be required to purchase or have hand tools and appropriate clothing and safety gear with a total cost of approximately $2,500.00 This does not include cost of required textbooks. These costs may vary with student need and brand or quality of tools or equipment purchased. All safety glasses must meet the minimum industry safety standard of Z-87 with side shields.

Code	Title	Semester Credit Hours
TSTC 100	Introduction to Transportation Services	2
TSTC 101	Vehicle Service and Inspection	3
TSTC 130	Electrical I	2
TSTC 160	Electrical II	2
TSTC 170	Chassis Fundamentals	2
TSTC 171	Brakes I (first mod)	2
TSTG 120	Industrial Safety Practices	2
TSTG 135	Starting and Charging Systems	2
TSTG 175	Brakes II (second mod)	2
TSTG 195	Climate Control	4
TSTG 220	Workplace Skills	3
TSTA 265	Engine Control Services	3
TSTA 275	Alignment and Suspension Service	3
MATH 107	Career Math	3
Total Semester Credit Hours		**35**

Restricted Electives

Code	Title	Semester Credit Hours
Select four hours from the following list of Restricted Electives:		**4**
TSTA 245	Manual Drive Trains	
TSTA 247	Automatic Drive Train Service	
TSTA 267	Body Controls	
TSTA 286	Hybrid and Alternative Fueled Vehicles	
TSTA 287	Engine Performance and Emissions	
TSTG 150	Introduction to Fluid Power	
TSTG 215	Engine Reconditioning	
TSTG 240	Job Shop	
TSTG 275	ABS Diagnostics	
Total Semester Credit Hours		**4**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
TSTC 100	Introduction to Transportation Services	2
TSTC 101	Vehicle Service and Inspection	3
TSTC 170	Chassis Fundamentals	2
TSTC 171	Brakes I (first mod)	2
TSTG 135	Starting and Charging Systems	2
TSTG 175	Brakes II (second mod)	2
	Semester Credit Hours	**13**
Spring Semester		
TSTC 130	Electrical I (first mod)	2
TSTC 160	Electrical II (second mod)	2
TSTG 120	Industrial Safety Practices	2
TSTG 195	Climate Control	4
MATH 107	Career Math	3
	Semester Credit Hours	**13**
Second Year		
Fall Semester		
TSTG 220	Workplace Skills	3
TSTA 265	Engine Control Services	3
TSTA 275	Alignment and Suspension Service	3
Restricted Electives		4
	Semester Credit Hours	**13**
	Total Semester Credit Hours	**39**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Diesel Mechanics, Transportation Services (Technical Certificate)

Award: Technical Certificate
Program of Study: Transportation Services
Specialization: Diesel Mechanics
Program Code: 1347

Students learn the fundamentals of electronics, starters, ignition, and charging systems; air conditioning, cooling and heating systems; safety; technical math; use of technical manuals; basic management skills; written and oral communication skills; and leadership. Advanced coursework includes an in-depth study of internal combustion engine disassembly, repair, reassembly, diagnosis and troubleshooting; suspension systems; and alignment and wheel balance. The diesel mechanics specialization concentrates on on-road trucks and light duty diesel-powered vehicles. Career options include automotive/diesel technician, parts and service distributor, industrial sales representative, and service manager.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Apply Mathematical concepts and practices that are required to properly perform vehicle repair competencies to an (ASE) Automotive Service Excellence standard. (Quantitative Fluency)
2. Describe the scope and application of principle features of the field of study, including core practices in the vehicle repair industry. (Specialized Knowledge, Communication Fluency)
3. Perform diesel vehicle repair practices that meet or exceed industry standards as defined by (ASE) Automotive Service Excellence. (Applied Learning, Critical Thinking)
4. Define the legal and ethical standards required of the vehicle repair industry. (Specialized Knowledge)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.

- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(35 semester hours)

- Additional Expenses – Students entering the program may be required to purchase or have hand tools and appropriate clothing and safety gear with a total cost of approximately $2,500.00. This does not include cost of required textbooks. These costs may vary with student need and brand or quality of tools or equipment purchased. All safety glasses must meet the minimum industry safety standard of Z-87 with side shields.

Code	Title	Semester Credit Hours
TSTC 100	Introduction to Transportation Services	2
TSTC 101	Vehicle Service and Inspection	3
TSTC 130	Electrical I	2
TSTC 160	Electrical II	2
TSTC 171	Brakes I	2
TSTD 275	Heavy Duty Suspension	2
TSTG 135	Starting and Charging Systems	2
TSTG 175	Brakes II	2
TSTD 177	Air Systems Repair and Service	2
TSTD 265	Diesel Engine Controls	3
TSTD 276	Diesel Aftertreatment and Emission Systems	3
TSTD 280	Hydraulic Systems Service and Repair	3
TSTG 195	Climate Control	4
MATH 107	Career Math	3
Total Semester Credit Hours		**35**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
TSTC 100	Introduction to Transportation Services	2
TSTC 101	Vehicle Service and Inspection	3
TSTC 171	Brakes I (first mod)	2
TSTG 135	Starting and Charging Systems	2
TSTG 175	Brakes II (second mod)	2
TSTD 177	Air Systems Repair and Service	2
TSTD 275	Heavy Duty Suspension	2
TSTD 280	Hydraulic Systems Service and Repair	3
	Semester Credit Hours	**18**
Spring Semester		
TSTC 130	Electrical I (first mod)	2
TSTC 160	Electrical II (second mod)	2
TSTG 195	Climate Control	4
TSTD 265	Diesel Engine Controls	3
TSTD 276	Diesel Aftertreatment and Emission Systems	3
MATH 107	Career Math	3
	Semester Credit Hours	**17**
	Total Semester Credit Hours	**35**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Hybrid Vehicle Technician, Transportation Services (Technical Certificate)

Overview

Award: Technical Certificate
Program of Study: Transportation Services
Specialization: Hybrid Vehicle Technician
Program Code: 1159

Students learn to perform repair practices on hybrid vehicle combustion engines. Instruction topics include operational characteristics of a hybrid vehicle drive train, regenerative braking systems, high-voltage circuit safety practices, and hybrid vehicle auxiliary battery service, repair, and test procedures.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Identify hybrid vehicle internal combustion engine service precautions (Specialized Knowledge).
2. Describe the operational characteristics of a hybrid vehicle drive train (Communication Fluency).
3. Describe the operation of a regenerative braking system (Communication Fluency).
4. Identify high-voltage circuits of a hybrid electric vehicle and safety precautions (Specialized Knowledge).
5. Identify hybrid vehicle auxiliary (12v) battery service repair, and test procedures (Critical Thinking, Specialized Knowledge).

Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(19 semester hours)

Additional Expenses – Students entering the program may be required to purchase or have hand tools and appropriate clothing and safety gear with a total cost of approximately $2,500.00 This does not include cost of required textbooks. These costs may vary with student need and brand or quality of tools or equipment purchased. All safety glasses must meet the minimum industry safety standard of Z-87 with side shields.

Code	Title	Semester Credit Hours
TSTC 100	Introduction to Transportation Services	2
TSTC 101	Vehicle Service and Inspection	3
TSTC 130	Electrical I	2
TSTC 160	Electrical II	2
TSTG 135	Starting and Charging Systems	2
TSTA 265	Engine Control Services	3
TSTA 267	Body Controls	3
TSTA 286	Hybrid and Alternative Fueled Vehicles	2
Total Semester Credit Hours		**19**

Suggested Course Plan

First Year

Fall Semester		**Semester Credit Hours**
TSTC 100	Introduction to Transportation Services	2
TSTC 101	Vehicle Service and Inspection	3
TSTG 135	Starting and Charging Systems	2
TSTA 265	Engine Control Services	3
	Semester Credit Hours	**10**
Spring Semester		
TSTC 130	Electrical I	2
TSTC 160	Electrical II	2
TSTA 267	Body Controls	3
TSTA 286	Hybrid and Alternative Fueled Vehicles	2
	Semester Credit Hours	**9**
	Total Semester Credit Hours	**19**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Light Duty Automotive Technician Foundations I, Transportation Services (Technical Certificate)

Award: Technical Certificate
Program of Study: Transportation Services
Specialization: Light Duty Automotive Technician Foundations I
Program Code: 1119

Students learn the fundamentals of electronics, starters, ignition, and charging systems, air conditioning, brakes, suspension and steering, cooling and heating systems, safety, technical math, use of technical manuals, basic management, communication and leadership skills. Career options include light duty automotive/diesel technician, parts and service distributor.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Apply principles of grammar and vocabulary in the documentation required to perform the duties of a repair technician to properly repair vehicles. (Communication Fluency)
2. Apply Mathematical concepts and practices that are required to properly perform vehicle repair competencies to an (ASE) Automotive Service Excellence standard. (Quantitative Fluency)
3. Evaluate evidence discovered during the diagnosis and troubleshooting of vehicles and apply those finding to strategies to properly repair the vehicle. (Critical Thinking)
4. Describe the scope and application of principle features of the field of study, including core practices in the vehicle repair industry. (Specialized Knowledge)
5. Demonstrate mastery of the current terminology in the Transportation Service industry and generate substantially error-free products or processes that define the duties of a repair technician. (Specialized Knowledge)
6. Perform vehicle repair practices that meet or exceed industry standards as defined by (ASE) Automotive Service Excellence. (Applied Learning)
7. Demonstrate personal and professional ethical behavior as applied to the industry. (Applied Learning)
8. Define the legal and ethical standards required of the vehicle repair industry. (Specialized Knowledge)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information,

scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than “C” will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(9 semester hours, must earn a grade of “C” or better in each course.)

- Additional Expenses – Students entering the program may be required to purchase or have hand tools and appropriate clothing and safety gear with a total cost of approximately $2,500.00. This does not include cost of required textbooks. These costs may vary with student need and brand or quality of tools or equipment purchased. All safety glasses must meet the minimum industry safety standard of Z-87 with side shields.
- This program is a required precursor to the Technical Certificate in Light Duty Automotive Technician Foundations II.

Code	Title	Semester Credit Hours
TSTC 100	Introduction to Transportation Services	2
TSTC 101	Vehicle Service and Inspection	3
TSTC 130	Electrical I	2
TSTC 160	Electrical II	2
Total Semester Credit Hours		**9**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
TSTC 101	Vehicle Service and Inspection	3
TSTC 100	Introduction to Transportation Services	2
	Semester Credit Hours	**5**
Spring Semester		
TSTC 130	Electrical I	2
TSTC 160	Electrical II	2
	Semester Credit Hours	**4**
	Total Semester Credit Hours	**9**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student’s responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar’s Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar’s Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the “Intent to Graduate” form to the Registrar’s Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's “Intent to Graduate” does not automatically move to a later graduation date.

Light Duty Automotive Technician Foundations II, Transportation Services (Technical Certificate)

Award: Technical Certificate
Program of Study: Transportation Services
Specialization: Light Duty Automotive Technician Foundations II
Program Code: 1120

Students learn the fundamentals of electronics, starters, ignition, and charging systems, air conditioning, brakes, suspension and steering, cooling and heating systems, safety, technical math, use of technical manuals, basic management, communication and leadership skills. Career options include light duty automotive/diesel technician, parts and service distributor.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Apply principles of grammar and vocabulary in the documentation required to perform the duties of a repair technician to properly repair vehicles. (Communication Fluency)
2. Apply Mathematical concepts and practices that are required to properly perform vehicle repair competencies to an (ASE) Automotive Service Excellence standard. (Quantitative Fluency
3. Evaluate evidence discovered during the diagnosis and troubleshooting of vehicles and apply those finding to strategies to properly repair the vehicle. (Critical Thinking
4. Describe the scope and application of principle features of the field of study, including core practices in the vehicle repair industry. (Specialized Knowledge)
5. Demonstrate mastery of the current terminology in the Transportation Service industry and generate substantially error-free products or processes that define the duties of a repair technician. (Specialized Knowledge)
6. Perform vehicle repair practices that meet or exceed industry standards as defined by (ASE) Automotive Service Excellence. (Applied Learning)
7. Demonstrate personal and professional ethical behavior as applied to the industry. (Applied Learning)
8. Define the legal and ethical standards required of the vehicle repair industry. (Specialized Knowledge)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(8 semester hours, must earn grade of "C" or better in each course.)

- Additional Expenses – Students entering the program may be required to purchase or have hand tools and appropriate clothing and safety gear with a total cost of approximately $2,500.00. This does not include cost of required textbooks. These costs may vary with student need and brand or quality of tools or equipment purchased. All safety glasses must meet the minimum industry safety standard of Z-87 with side shields.
- The 9 semester hour Technical Certificate in Transportation Services Light Duty Automotive Technician Foundations I must be completed prior to Foundations II.

Code	Title	Semester Credit Hours
TSTC 170	Chassis Fundamentals	2
TSTG 135	Starting and Charging Systems	2
TSTC 171	Brakes I	2
TSTG 175	Brakes II	2
Total Semester Credit Hours		**8**

Suggested Course Plan

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First Year		
Fall Semester		**Semester Credit Hours**
TSTC 171	Brakes I	2
TSTG 175	Brakes II	2
TSTG 135	Starting and Charging Systems	2
TSTC 170	Chassis Fundamentals	2
	Semester Credit Hours	**8**
	Total Semester Credit Hours	**8**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Light Duty Automotive Technician, Transportation Services (Technical Certificate)

Award: Technical Certificate
Program of Study: Transportation Services
Specialization: Light Duty Automotive Technician
Program Code: 1106

Students learn the fundamentals of electronics, starters, ignition, and charging systems, air conditioning, brakes, suspension and steering, cooling and heating systems, safety, technical math, use of technical manuals, basic management, communication and leadership skills. Career options include light duty automotive/diesel technician, parts and service distributor.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Apply Mathematical concepts and practices that are required to properly perform vehicle repair competencies to an (ASE) Automotive Service Excellence standard. (Quantitative Fluency)
2. Describe the scope and application of principle features of the field of study, including core practices in the vehicle repair industry. (Specialized Knowledge)
3. Define the legal and ethical standards required of the vehicle repair industry. (Specialized Knowledge)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.

- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(28 semester hours, must earn a grade of "C" or better in all courses.)

- Additional Expenses – Students entering the program may be required to purchase or have hand tools and appropriate clothing and safety gear with a total cost of approximately $2,500.00. This does not include cost of required textbooks. These costs may vary with student need and brand or quality of tools or equipment purchased. All safety glasses must meet the minimum industry safety standard of Z-87 with side shields.

Code	Title	Semester Credit Hours
TSTC 100	Introduction to Transportation Services	2
TSTC 101	Vehicle Service and Inspection	3
TSTC 130	Electrical I	2
TSTC 160	Electrical II	2
TSTC 170	Chassis Fundamentals	2
TSTC 171	Brakes I	2
TSTG 120	Industrial Safety Practices	2
TSTG 175	Brakes II	2
TSTG 195	Climate Control	4
MATH 107	Career Math	3
Total Semester Credit Hours		**24**

Code	Title	Semester Credit Hours
Restricted Electives		
Select a minimum of 4 semester hours from the following:		4
TSTG 275	ABS Diagnostics	
TSTA 265	Engine Control Services	
TSTA 267	Body Controls	
TSTA 275	Alignment and Suspension Service	
TSTA 286	Hybrid and Alternative Fueled Vehicles	
TSTA 287	Engine Performance and Emissions	
TSTG 135	Starting and Charging Systems	
TSTG 145	Technology in the Automotive Field	
TSTG 215	Engine Reconditioning	
TSTG 245	Technology in the Automotive Field II	
Total Semester Credit Hours		**4**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
TSTC 100	Introduction to Transportation Services	2
TSTC 101	Vehicle Service and Inspection	3
TSTC 171	Brakes I	2
TSTG 175	Brakes II	2
TSTC 170	Chassis Fundamentals	2
MATH 107	Career Math	3
	Semester Credit Hours	**14**
Spring Semester		
TSTC 130	Electrical I	2
TSTC 160	Electrical II	2
TSTG 120	Industrial Safety Practices	2
TSTG 195	Climate Control	4
TSTG/A - Restricted Electives		4
	Semester Credit Hours	**14**
	Total Semester Credit Hours	**28**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.

- Submit the “Intent to Graduate” form to the Registrar’s Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's “Intent to Graduate” does not automatically move to a later graduation date.

Unmanned Aircraft Systems

Program Description

This program prepares students to be a commercial Unmanned Aircraft Systems (UAS) pilot, or drone pilot. Students develop skills in flight planning, programming, maintaining, and piloting small UAS. Preparation for the Federal Aviation Administration (FAA) Remote Pilot Knowledge test is included. Students learn how to acquire and transmit data and participate in live flight training of UAS, both indoor and outdoor.

The program will also develop students’ knowledge and understanding of UAS history, terminology, operational capabilities and limitations, and FAA Part 107 compliance and regulation. Key skills of emphasis include flight operations, maintenance, and preflight procedures.

Contact Information

CMU Tech
Office of Student Services, Kayenta Hall 102
2508 Blichmann Avenue
970.255.2670

Programs of Study

Certificates

- Pilot Small UAS, Unmanned Aircraft Systems (Technical Certificate) (p. 812)

Pilot Small UAS, Unmanned Aircraft Systems (Technical Certificate)

Award: Technical Certificate
Program of Study: Unmanned Aircraft Systems
Specialization: Pilot Small UAS
Program Code: 1139

This program prepares students to be a commercial UAS pilot. Students develop skills in flight planning, programming, maintaining and piloting Small UAS. Preparation for the FAA Remote Pilot Knowledge test is included. Students learn how to acquire and transmit data and participate in live flight training of UAS are included, both indoor and outdoor.

Important information about this program:

- Must pass FAA Pre-Check background check.
- Must be a member of the Academy of Model Aeronautics and the Grand Junction Modeleers club.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Operate UAS proficiently as a professional pilot. (Critical Thinking)
2. Interpret FAA charts and forms accurately. (Specialized Knowledge)
3. Explain UAS flight planning as a pilot in a typical environment. (Applied Learning)

4. Explain the maintenance, configuration and programming of UAS. (Communication Fluency)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than “C” will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

Code	Title	Semester Credit Hours
UASP 101	UAS Pilot Ground School	3
UASP 110	UAS Pilot License Preparation	1
UASP 120	UAS Pilot Operations and Applications	1
Total Semester Credit Hours		**5**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
UASP 101	UAS Pilot Ground School	3
UASP 110	UAS Pilot License Preparation	1
UASP 120	UAS Pilot Operations and Applications	1
	Semester Credit Hours	**5**
	Total Semester Credit Hours	**5**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student’s responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar’s Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar’s Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the “Intent to Graduate” form to the Registrar’s Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's “Intent to Graduate” does not automatically move to a later graduation date.

Veterinary Technology

Program Description

This program prepares the student for employment as a Veterinary Technician. These professionals are integral members of the veterinary care team in private veterinary practices, research laboratories, kennels, zoos, and public practice/government agencies. Students are trained to work with a broad range of animal species and to become proficient in performing a variety of tasks including medical and surgical nursing procedures, laboratory testing, anesthesia induction, monitoring, maintenance, and recovery, restraining animals during exams and treatments, collecting samples, taking diagnostic X-rays, administering medication and treatments, assisting in surgery, and assisting with client education.

Successful completion of the program will lead to an Associate of Applied Science in Veterinary Technology and prepare students to take the Veterinary Technician National Examination for National certification.

Students admitted to the Veterinary Technology program must undergo a background check, and submit proof of immunizations and health insurance.

- Veterinary Technician Program Accreditation
- Higher Learning Commission (HLC)

The CMU Tech Veterinary Technology Program has achieved program approval through the Higher Learning Commission (HLC) and accreditation through the American Veterinary Medical Association Committee on Veterinary Technician Education and Activities (AVMA CVTEA).

This is a competitive program; secondary applications are due in the fall of each year for admission into the program in spring. Eligible students are invited for an interview and successful applicants are notified of provisional acceptance in October. Pre-requisite classes should be completed in the fall before the intended admission to the program.

A link to the application form and information about the interview process can be found on the Veterinary Technology web page.

Contact Information

CMU Tech
Office of Student Services, Kayenta Hall 102
2508 Blichmann Avenue
970.255.2670

Programs of Study

Associates

- Veterinary Technology (AAS) (p. 814)

Veterinary Technology (AAS)

Degree: Associate of Applied Science
Major: Veterinary Technology
Program Code: 1306

The Veterinary Technology program is for all individuals who wish to develop careers as an important member of the veterinary care team by providing humane and quality care to animals. Veterinary technicians perform a variety of tasks including medical and surgical nursing procedures, laboratory testing, anesthesia induction, recovery maintenance, monitoring, holding and restraining animals during exams and treatments, collecting specimens, taking diagnostic X-rays, administering medication or treatments, assisting in surgery, and assisting with client education. Your education will lead to an Associate of Applied Science in veterinary technology and prepares you to take the Veterinary Technician National Examination for certification. Graduates may find career opportunities in private veterinary practices, research laboratories, kennels, zoos, and local, state and federal agencies.

Important information about this program:

- Program admission requires a minimum overall GPA of 2.5 and a grade of "C" or better in ENGL 111, SPCH 101, MATH 108, BIOL 105, and BIOL 105L.
- A minimum grade of C is required for all VETT courses.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

Veterinary Technician Program Accreditation –

Higher Learning Commission (HLC) and Specialized Accreditation American Veterinary Medical Association Committee on Veterinary Technician Education and Activities (AVMA CVTEA)

CMU Tech Veterinary Technology Program has achieved program approval through the Higher Learning Commission (HLC) and is in the process of completing accreditation requirements for accreditation through the AVMA CVTEA. The AVMA CVTEA application does not guarantee accreditation nor does it grant any temporary status of accreditation. While students may take classes that are potentially required for a degree, students will not be eligible to sit for the Veterinary Technician National Exam until AVMA CVTEA program approval is granted. CMU Tech is actively seeking this accreditation.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Communicate in a professional manner to the veterinary team and clients, in all formats - written, oral, non-verbal, and electronic (Communication Fluency).
2. Safely and effectively perform applied skill sets and techniques necessary for the profession and applicable to a broad range of animal species, at a competent level and in a proficient manner (Critical Thinking; Specialized Knowledge/Applied Learning).
3. Follow and uphold applicable laws and the veterinary technology profession's ethical codes to provide high quality care to patients (Personal and Social Responsibility).

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or

"Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Specific to this degree:

- 82 semester credit hours required for the AAS, Veterinary Technology.

Essential Learning Requirements

(16 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
English		
ENGL 111	English Composition I-GTCO1	3
SPCH 101	Interpersonal Communication	3
Mathematics		
MATH 108	Technical Mathematics (or higher) [1]	4
Other Essential Learning Core Courses		
Select one course and corresponding lab from the following:		4
BIOL 101 & 101L	General Human Biology-GTSC1 and General Human Biology Laboratory-GTSC1	
BIOL 105 & 105L	Attributes of Living Systems-GTSC1 and Attributes of Living Systems Laboratory-GTSC1	
Select one Social and Behavioral Sciences, Natural Sciences, Fine Arts or Humanities course [2]		3
Total Semester Credit Hours		**17**

[1] MATH 108 is a 4 semester credit hour course; however, if a student completes a higher-level, Essential Learning eligible Mathematics course at 3 semester credit hours, that course would fulfill the Mathematics Essential Learning requirement.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
KINA 1XX	Activity Course	1
Total Semester Credit Hours		**2**

Program Specific Degree Requirements

(63 semester hours, must earn a grade of "C" or better in each course)

Code	Title	Semester Credit Hours
VETT 102	Veterinary Medical Terminology	2
VETT 106	Exotic Animal Handling	2
VETT 108	Introduction to Laboratory Procedures	3
VETT 109	Applied Companion Animal Behavior	3
VETT 115	Surgical Nursing for Veterinary Technicians	2
VETT 116	Humane Treatment and Handling of Animals	3
VETT 120	Office Procedures and Relations	2
VETT 134	Diagnostic Imaging	2
VETT 172	First Year Clinical Basics	2
VETT 205 & 205L	Veterinary Anatomy and Physiology I and Veterinary Anatomy and Physiology I Laboratory	4
VETT 206 & 206L	Veterinary Anatomy and Physiology II and Veterinary Anatomy and Physiology II Laboratory	4
VETT 223	Introduction to Anesthesia	1
VETT 224	Pharmacology for Veterinary Technicians	3
VETT 225	Anesthesiology	3
VETT 227	Animal Nutrition	2
VETT 232	Veterinary Dentistry	1
VETT 238	Small Animal Nursing	2
VETT 239	Large Animal Nursing	3
VETT 241	Clinical Laboratory Procedures	4
VETT 242	Veterinary Critical Care	2
VETT 243	Veterinary Diagnostic Microbiology	3
VETT 250	Clinical Competency Evaluation	1
VETT 275	Specialty Rotation	2

VETT 280	Diagnostic Imaging Clinical	1
VETT 281	Clinical I	2
VETT 282	Clinical II	3
VETT 285	Veterinary Technician Exam Prep	1
Total Semester Credit Hours		**63**

Suggested Course Plan

Due to a potential variation in semester credit hours for the Essential Learning Mathematics credits, the following sequencing results in variable credit hours; however, students in this major must complete a minimum of 82 semester credit hours, including satisfactory completion of all required courses, for satisfactory completion of degree.

First Year		
Fall Semester		**Semester Credit Hours**
ENGL 111	English Composition I-GTCO1	3
KINA 1XX	Activity Course	1
KINE 100	Health and Wellness	1
MATH 108	Technical Mathematics (or higher) [1]	4
SPCH 101	Interpersonal Communication	3
Select one course and corresponding lab from the following:		4
BIOL 101 & 101L	General Human Biology-GTSC1 and General Human Biology Laboratory-GTSC1	
BIOL 105 & 105L	Attributes of Living Systems-GTSC1 and Attributes of Living Systems Laboratory-GTSC1	
	Semester Credit Hours	**16**
Spring Semester		
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts, or Humanities Essential Learning course [2]		3
VETT 102	Veterinary Medical Terminology	2
VETT 108	Introduction to Laboratory Procedures	3
VETT 109	Applied Companion Animal Behavior	3
VETT 116	Humane Treatment and Handling of Animals	3
VETT 120	Office Procedures and Relations	2
	Semester Credit Hours	**16**
Summer Semester		
VETT 134	Diagnostic Imaging	2
VETT 172	First Year Clinical Basics	2
VETT 205 & 205L	Veterinary Anatomy and Physiology I and Veterinary Anatomy and Physiology I Laboratory	4
VETT 280	Diagnostic Imaging Clinical	1
	Semester Credit Hours	**9**
Second Year		
Fall Semester		
VETT 106	Exotic Animal Handling	2
VETT 115	Surgical Nursing for Veterinary Technicians	2
VETT 206 & 206L	Veterinary Anatomy and Physiology II and Veterinary Anatomy and Physiology II Laboratory	4
VETT 223	Introduction to Anesthesia	1
VETT 224	Pharmacology for Veterinary Technicians	3
VETT 241	Clinical Laboratory Procedures	4
VETT 281	Clinical I	2
	Semester Credit Hours	**18**
Spring Semester		
VETT 225	Anesthesiology	3
VETT 227	Animal Nutrition	2
VETT 232	Veterinary Dentistry	1
VETT 238	Small Animal Nursing	2
VETT 239	Large Animal Nursing	3
VETT 242	Veterinary Critical Care	2
VETT 250	Clinical Competency Evaluation	1
VETT 275	Specialty Rotation	2
	Semester Credit Hours	**16**
Summer Semester		
VETT 243	Veterinary Diagnostic Microbiology	3
VETT 282	Clinical II	3
VETT 285	Veterinary Technician Exam Prep	1
	Semester Credit Hours	**7**
	Total Semester Credit Hours	**82**

[1] MATH 108 is a 4 semester credit hour course; however, if a student completes a higher-level, Essential Learning eligible Mathematics course at 3 semester credit hours, that course would fulfill the Mathematics Essential Learning requirement.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Viticulture and Enology

Program Description

The Viticulture and Enology curriculum is designed to provide the entrepreneurial and technical skills necessary to manage a profitable, environmentally sound vineyard and/or winemaking business. Students learn the fundamentals of sustainable viticulture, focusing on cultivars that are suitable for Colorado, as well as the science of fermentation, and the fundamentals of producing and testing wine. The new Warren Winiarski-Gerald Ivancie Institute of Viticulture and Enology allows students to collaborate with grape growers and wine makers providing valuable research that is needed for a thriving wine industry. Emphasis is placed on entrepreneurial and practical field training. As part of their education, students will learn the challenges of establishing a vineyard and growing high-quality grapes in a harsh environment, and apply knowledge learned in all aspects of the winemaking process in a hands-on atmosphere. Graduates are qualified for employment in a variety of positions associated with viticulture and winemaking businesses.

This program will provide the student with an understanding of the viticulture and enology industry, the principles and science underlying operation and control decisions, and financial practices and measures common to the businesses. The graduate will understand the fundamentals of making a high-quality wine starting in the vineyard through bottling in this vitally important career.

Contact Information

CMU Tech
Office of Student Services, Kayenta Hall 102
2508 Blichmann Avenue
970.255.2670

Programs of Study

Associates

- Viticulture and Enology (AAS) (p. 817)

Certificates

- Viticulture and Enology: Enology (Technical Certificate) (p. 819)
- Viticulture and Enology: Viticulture (Technical Certificate) (p. 820)
- Viticulture and Enology: Wine Appreciation (Technical Certificate) (p. 822)
- Viticulture and Enology: Wine Fermentation (Technical Certificate) (p. 823)
- Viticulture and Enology: Wine Professional (Technical Certificate) (p. 824)

Viticulture and Enology (AAS)

Degree: Associate of Applied Science
Major: Viticulture and Enology
Program Code: 1309

The Viticulture and Enology curriculum is designed to provide a multifaceted education of the wine business. The Colorado wine industry is made up of boutique size wineries. Owners, managers, and key employees need to have a strong knowledge of all aspects of the business to aid in their success including grape growing, wine production and sales/marketing.

Graduates from the Associate of Applied Science in Viticulture and Enology have the knowledge and skills to start their own winery or begin a variety of careers in viticulture or the wine business. Emphasis is placed on entrepreneurial and practical field training.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Apply appropriate terminology used in winemaking and sensory analysis, including a presentation of this information to the class. (Communication Fluency)
2. Apply chemistry and mathematics principles to solve problems and calculations needed throughout the winemaking process. (Quantitative Fluency)
3. Evaluation of wines to assess quality and solve problems through research and information learned throughout the program. (Critical Thinking, Information Literacy)
4. Describe the personal and legal responsibility in the wine business; including applicable federal, state and local laws. (Personal and Social Responsibility)
5. Recognize and describe the production of a high-quality wine, including starting parameters, fermentation and aging. (Specialized Knowledge)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.

- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this degree:

- 65 semester hours total for the AAS, Viticulture and Enology.
- A minimum of 16 semester hours taken at CMU in no fewer than two semesters.

Essential Learning Requirements

(15 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
Communication		
ENGL 111	English Composition I-GTCO1	3
Select one of the following courses:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communication	
SPCH 102	Speechmaking	
Mathematics		
MATH 107	Career Math (or higher)	3
Other Essential Learning Core Courses		
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
Total Semester Credit Hours		**15**

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Total Semester Credit Hours		**2**

Program Specific Degree Requirements

(48 semester hours, must earn a "C" or better in each course.)

Code	Title	Semester Credit Hours
ACCT 201	Principles of Financial Accounting	3
AGRS 100 & 100L	Practical Crop Production and Practical Crop Production Laboratory	4
AGRS 125	Agricultural Machinery and Technology	3
VITE 101	Introduction to Wine	3
VITE 105	Agriculture Chemistry	3
VITE 115 & 115L	Vineyard Establishment and Management and Vineyard Establishment and Management Laboratory	4
VITE 205	Wine Business and Marketing	3
VITE 210 & 210L	Fermentation Science and Fermentation Science Laboratory	4
VITE 250	Advanced Winemaking I	4
VITE 255 & 255L	Viticulture Harvest and Post-Harvest Management and Viticulture Harvest and Post-Harvest Management Laboratory	3
VITE 260	Science of Winemaking	3
VITE 265	Wines of the World	2
VITE 270	Sensory Analysis of Wine	3
VITE 280	Advanced Winemaking II	3
VITE 299	Winery Internship	3
Total Semester Credit Hours		**48**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
AGRS 100 & 100L	Practical Crop Production and Practical Crop Production Laboratory	4
AGRS 125	Agricultural Machinery and Technology	3
VITE 101	Introduction to Wine	3
ENGL 111	English Composition I-GTCO1	3
MATH 107	Career Math	3
	Semester Credit Hours	**16**
Spring Semester		
VITE 105	Agriculture Chemistry	3
VITE 210 & 210L	Fermentation Science and Fermentation Science Laboratory	4
VITE 115 & 115L	Vineyard Establishment and Management and Vineyard Establishment and Management Laboratory	4
Select one of the following:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communication	
SPCH 102	Speechmaking	
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
	Semester Credit Hours	**17**
Second Year		
Fall Semester		
VITE 250	Advanced Winemaking I	4

VITE 255 & 255L	Viticulture Harvest and Post-Harvest Management and Viticulture Harvest and Post-Harvest Management Laboratory	3
VITE 265	Wines of the World	2
VITE 299	Winery Internship	3
KINE 100	Health and Wellness	1
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
	Semester Credit Hours	**16**
Spring Semester		
ACCT 201	Principles of Financial Accounting	3
VITE 205	Wine Business and Marketing	3
VITE 260	Science of Winemaking	3
VITE 270	Sensory Analysis of Wine	3
VITE 280	Advanced Winemaking II	3
KINA Activity Course		1
	Semester Credit Hours	**16**
	Total Semester Credit Hours	**65**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Viticulture and Enology: Enology (Technical Certificate)

Award: Technical Certificate
Program of Study: Viticulture and Enology
Specialization: Enology
Program Code: 1109

Enology Technical certificate in the Viticulture and Enology program is a concentrated study in both the art and science involved in the winemaking process. The certificate provides a solid foundation of knowledge from grape to bottle. Students apply the skills in a hands-on setting through small-scale winemaking with individual projects and applied research projects for the industry.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Apply appropriate terminology used in winemaking and sensory analysis, including the presentation of this information to the class. (Communication Fluency)
2. Apply chemistry and mathematic principles to solve problems and calculations needed throughout the winemaking process. (Quantitative Fluency)
3. Evaluation of wines to assess quality and solve problems through research and learned information. (Critical Thinking)
4. Describe and explain the production of a high-quality wine, including starting parameters, fermentation, and aging. (Specialized Knowledge)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.

- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(17 semester hours, must earn a grade of "C" or better in each course.)

Code	Title	Semester Credit Hours
Required Courses		
VITE 101	Introduction to Wine	3
VITE 210 & 210L	Fermentation Science and Fermentation Science Laboratory	4
VITE 250	Advanced Winemaking I	4
VITE 260	Science of Winemaking	3
VITE 280	Advanced Winemaking II	3
Total Semester Credit Hours		**17**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
VITE 101	Introduction to Wine	3
	Semester Credit Hours	**3**
Spring Semester		
VITE 210 & 210L	Fermentation Science and Fermentation Science Laboratory	4
	Semester Credit Hours	**4**
Second Year		
Fall Semester		
VITE 250	Advanced Winemaking I	4
	Semester Credit Hours	**4**
Spring Semester		
VITE 260	Science of Winemaking	3
VITE 280	Advanced Winemaking II	3
	Semester Credit Hours	**6**
	Total Semester Credit Hours	**17**

Advising and Graduation Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Viticulture and Enology: Viticulture (Technical Certificate)

Award: Technical Certificate
Program of Study: Viticulture and Enology
Specialization: Viticulture
Program Code: 1107

Viticulture Technical certificate in the Viticulture and Enology program prepares students with the skills to establish a vineyard, or a career in grape growing. Eighty percent of the grapes grown in Colorado are located in the Grand Valley. Students build a solid foundation and participate in workshops with local growers. Courses are taught in a hands-on setting in the vineyard. Students will visit several vineyard sites through courses that make up this certificate.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Communicate clearly and appropriately basic grape growing protocols in a site evaluation. (Communication Fluency)
2. Apply mathematical and applied chemistry concepts for use in calculations needed in the field. (Quantitative Fluency)
3. Evaluate and apply information learned/researched to identify problems in the vineyard. (Critical Thinking)
4. Research and demonstrate knowledge for establishing a successful vineyard site. (Specialized Knowledge)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(14 semester hours, must earn a grade of "C" or better in each course.)

Code	Title	Semester Credit Hours
Required Courses		
AGRS 100 & 100L	Practical Crop Production and Practical Crop Production Laboratory	4
AGRS 125	Agricultural Machinery and Technology	3
VITE 115 & 115L	Vineyard Establishment and Management and Vineyard Establishment and Management Laboratory	4
VITE 255 & 255L	Viticulture Harvest and Post-Harvest Management and Viticulture Harvest and Post-Harvest Management Laboratory	3
Total Semester Credit Hours		**14**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
AGRS 100 & 100L	Practical Crop Production and Practical Crop Production Laboratory	4
AGRS 125	Agricultural Machinery and Technology	3
	Semester Credit Hours	**7**
Spring Semester		
VITE 115 & 115L	Vineyard Establishment and Management and Vineyard Establishment and Management Laboratory	4
	Semester Credit Hours	**4**
Second Year		
Fall Semester		
VITE 255 & 255L	Viticulture Harvest and Post-Harvest Management and Viticulture Harvest and Post-Harvest Management Laboratory	3
	Semester Credit Hours	**3**
	Total Semester Credit Hours	**14**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic

department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Viticulture and Enology: Wine Appreciation (Technical Certificate)

Overview

Award: Technical Certificate
Program of Study: Viticulture and Enology
Specialization: Wine Appreciation
Program Code: 1143

Wine Appreciation Technical certificate in the Viticulture and Enology program gives the student an opportunity to learn about winemaking, wine styles, wine regions, grape varieties and an opportunity to develop or improve their palate through sensory analysis. This certificate would benefit students in a restaurant, winery tasting room, retail/wholesale or used as a foundation to be successful toward a sommelier certification.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Communicate clearly and appropriately the basics of the winemaking process. (Communication Fluency)
2. Describe and identify wines produced from different regions using different grape varieties. (Specialized Knowledge)
3. Evaluate and apply knowledge learned to identify through problem-solving individual wine styles. (Critical Thinking)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this degree:

- 8 semester hours required for Technical Certificate in Viticulture and Enology: Wine Appreciation.

Program Specific Requirements

(8 semester hours required.)

Code	Title	Semester Credit Hours
VITE 101	Introduction to Wine	3
VITE 265	Wines of the World	2

VITE 270	Sensory Analysis of Wine	3
Total Semester Credit Hours		**8**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
VITE 101	Introduction to Wine	3
VITE 265	Wines of the World	2
	Semester Credit Hours	**5**
Spring Semester		
VITE 270	Sensory Analysis of Wine	3
	Semester Credit Hours	**3**
	Total Semester Credit Hours	**8**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Viticulture and Enology: Wine Fermentation (Technical Certificate)

Overview

Award: Technical Certificate
Program of Study: Viticulture and Enology
Specialization: Wine Fermentation
Program Code: 1149

Wine Fermentation Technical certificate in the Viticulture and Enology program is a concentrated study in all aspects of the fermentation process. Fermentation is the process of microorganisms converting sugar to ethanol that cannot be visualized. Students use lab analysis, sensory and a strong foundation of knowledge to understand the process of fermentation. The courses in the certificate are taught in a hands-on setting applying skills learned to gain understanding of the process. Although this certificate is directed toward making wine from grapes, fruit and/or honey; fermentation is fermentation, and the knowledge gained could be used in both beer and cider making.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Apply appropriate terminology used in fermentation and winemaking, including a presentation to the class to deliver the information. (Communication Fluency)
2. Evaluation of wines to assess quality and solve problems through research and learned information. (Critical thinking)
3. Describe and explain the production of a high-quality wine, including starting parameters, fermentation and aging. (Specialized Knowledge)
4. Apply chemistry and mathematic principles to solve problems and calculations needed throughout the fermentation process. (Quantitative Fluency)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this degree:

- 14 semester hours required for Technical Certificate in Viticulture and Enology: Wine Fermentation.

Program Specific Requirements

Code	Title	Semester Credit Hours
VITE 101	Introduction to Wine	3
VITE 210 & 210L	Fermentation Science and Fermentation Science Laboratory	4
VITE 250	Advanced Winemaking I	4
VITE 280	Advanced Winemaking II	3
Total Semester Credit Hours		**14**

Suggested Course Plan

First Year		
Spring Semester		**Semester Credit Hours**
VITE 101	Introduction to Wine	3
VITE 210 & 210L	Fermentation Science and Fermentation Science Laboratory	4
	Semester Credit Hours	**7**
Second Year		
Fall Semester		
VITE 250	Advanced Winemaking I	4
	Semester Credit Hours	**4**
Spring Semester		
VITE 280	Advanced Winemaking II	3
	Semester Credit Hours	**3**
	Total Semester Credit Hours	**14**

Advising and Graduation
Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Viticulture and Enology: Wine Professional (Technical Certificate)

Award: Technical Certificate
Program of Study: Viticulture and Enology
Specialization: Wine Professional
Program Code: 1108

Wine Professional Technical certificate in the Viticulture and Enology program introduces students to the service/sales side of wine. The student will gain knowledge in all aspects of wine production, wine marketing, sensory analysis and social media. This would be an ideal certificate for a student looking to work in the hospitality sector, tasting room sales/management, or wine club manager.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Communicate clearly and appropriately the basics of the winemaking process.\ (Communication Fluency)
2. Research and apply knowledge learned to develop a successful marketing plan in a saturated industry. (Critical Thinking)
3. Demonstrate a broad, comprehensive knowledge of sensory evaluation and the process of identifying a wine.\ (Specialized Knowledge)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than “C” will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See “Requirements for Undergraduate Degrees and Certificates” in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(12 semester hours, must earn a grade of “C” or better in each course.)

Code	Title	Semester Credit Hours
Required Courses		
ABUS 155	Social Media for Business	3
VITE 101	Introduction to Wine	3
VITE 205	Wine Business and Marketing	3
VITE 270	Sensory Analysis of Wine	3
Total Semester Credit Hours		**12**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
VITE 101	Introduction to Wine	3
ABUS 155	Social Media for Business	3
	Semester Credit Hours	**6**
Spring Semester		
VITE 205	Wine Business and Marketing	3
VITE 270	Sensory Analysis of Wine	3
	Semester Credit Hours	**6**
	Total Semester Credit Hours	**12**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student’s responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar’s Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar’s Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.

- Submit the “Intent to Graduate” form to the Registrar’s Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's “Intent to Graduate” does not automatically move to a later graduation date.

Watershed Science

Program Description

A minor in Watershed Sciences will complement majors in Physical & Environmental Science, specifically in Geosciences (GEOL) and Environmental Science (ENVS), as well as Geographic Information Science and Technology (GIST) and Biology (BIOL). However, students in many other majors interested in “water” would also benefit by the addition of this minor to their degree program.

The Watershed Science minor will provide students experience in the three critical components of watershed science that are each a semester-long course: surface water (including river dynamics and hydrology), groundwater (including confined and unconfined aquifers), and water chemistry (including both “clean” and “contaminated” water). Additional coursework electives for the minor add flexibility to focus on a particular subspecialty of interest. The proximity of Colorado Mesa University to the high semiarid environments of the Colorado, Gunnison, and Green Rivers, as well as the drainages of the Colorado National Monument and the surrounding mountain arroyos create an ideal location for the study of watershed science.

The minor in watershed science is an interdisciplinary program designed to serve both the national and also regional needs for scientists with a strong background in water-related issues (e.g., Bureau of Land Management, U.S. Geological Survey, U.S. Forest Service, U.S. Fish and Wildlife Service, and the Colorado Division of Wildlife). Some government agencies, such as the U.S. Forest Service, have shifted their management organization to focus on watersheds and this minor supports those needs in this area. Combined with a relevant B.S., plus additional calculus and physics courses, the minor satisfies the current federal government’s requirements for qualification as a "hydrologist."

Contact Information

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970.248.1737
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Wubben Science 232
970.248.1993

Programs of Study Bachelors/Minors

- Watershed Science (Minor) (p. 476)

Wildland Fire Management

Program Description

The Associate of Applied Science (AAS) in Wildland Fire Management covers the fundamentals of basic wildland firefighting, fire management and safety.

The program prepares students for entry-level positions in the wildland firefighting profession and is designed to provide students who are interested in careers in emergency and natural resource management with the knowledge, communication, and critical thinking skills necessary for success in the field.

Subjects covered are varied and include fundamentals of wildland fire fighting, fire behavior, leadership skills, meteorology, basic aviation, pumps and water hydraulics, incident command system, communications, ignition methods, and organizational management related to wildland fire emergency services. Program instructors contribute up-do-date industry expertise, and three credit internships are also available in the summer months with wildland fire agencies to enhance the students' field knowledge and practical experiences.

Students successfully completing each course are eligible for industry certification. The wildland fire courses presented meet National Wildfire Coordination Group (NWCG) standards and are accepted by federal, state, and local agencies with wildland fire management jurisdictions. This degree provides graduates with a competitive advantage in gaining employment with the wildland fire service and land management career markets. Students with this AAS in Wildland Fire Management combined with industry certification will be highly competitive for employment and future promotional opportunities in this field.

Special Requirements

Wildland Fire operations are rigorous in nature and some of the field training is arduous in order to simulate actual fire scene environments. Students are responsible for providing their own boots and gloves that meet NWCG requirements for personal protective equipment. Students must obtain an NWCG Incident Response Pocket Guide (IRPG), which will be referenced throughout each wildland fire course. As part of the certification process, a few courses involve student participation during a weekend field training day. Students are encouraged to contact the course instructor(s) for additional information regarding possible field requirements.

Contact Information

CMU Tech
Office of Student Services, Kayenta Hall 102
2508 Blichmann Avenue
970.255.2670

Programs of Study

Associates

- Wildland Fire Management (AAS) (p. 827)

Wildland Fire Management (AAS)

Degree: Associate of Applied Science
Major: Wildland Fire Management

Program Code: 1363

This program is designed for students who want the credentials of an associate degree combined with the technical training that meets the National Wildfire Coordination Group (NWCG) standards. The courses offered align with the NWCG Curriculum.

This degree provides graduates with a competitive advantage in gaining employment in the Wildland fire and land management career markets. Graduates are qualified to apply for jobs with the Bureau of Land Management, U.S. Forest Service, National Park Service, Fish and Wildlife, as well as state, county, and contracted wildland firefighting entities.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Demonstrate proficient formal and informal communication and writing skills that are professional in nature (Communication Fluency)
2. Apply mathematical concepts required of entry level wildland firefighters. (Quantitative Fluency)
3. Demonstrate specialized and holistic knowledge of interagency Wildland Fire Management (Specialized Knowledge)
4. Demonstrate proficiency in basic skills required for entry level Wildland Fire Management professionals (Applied Learning)
5. Evaluate leadership and ethical issues specific to Wildland Fire Management (Specialized Knowledge)

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Degree Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.

- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Specific to this program:

- 62 semester hours total for the AAS, Wildland Fire Management.

Essential Learning Requirements

(16 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
Communication		
ENGL 111	English Composition I-GTCO1	3
Select one of the following:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communication	
SPCH 102	Speechmaking	
Mathematics		
MATH 108	Technical Mathematics (or higher) [1]	4
Other Essential Learning Core Courses		
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
Total Semester Credit Hours		**16**

[1] MATH 108 is a 4 semester credit hour course. 3 credits apply to Essential Learning. A higher course will satisfy the mathematics requirement for this AAS, and MATH 110, MATH 113, or higher may be required for BAS and BS degrees at CMU. See next intended degree for details if continuing to baccalaureate study after completion of AAS. Should a student successfully complete a higher MATH course for 3 semester credit hours, this would fulfill the Mathematics Essential Learning Requirement and reduce the Essential Learning hours to 15. It would also reduce the overall hours for degree to 61, which is sufficient for graduation with this degree *only* when this hour difference is due to successful completion of a higher level MATH course at 3 semester credit hours.

Other Lower Division Requirements

Code	Title	Semester Credit Hours
Wellness Requirement		
KINE 100	Health and Wellness	1
KINA 127	Physical Conditioning	1
Total Semester Credit Hours		**2**

Program Specific Degree Requirements

(44 semester hours, must earn a grade of "C" or better in each course.)

Code	Title	Semester Credit Hours
Required Courses		
EMTS 115	Emergency Medical Responder	3
ENVS 101	Introduction to Environmental Science-GTSC2	3
GEOL 103	Weather and Climate-GTSC2	3
GEOG 131	Introduction to Cartography	3
FSWM 100	Introduction to Wildland Fire Basic Fire Guard School	5
FSWM 142	Portable Pumps and Water Use	2
FSWM 144	Fire Operations in the Wildland/Urban Interface	2
FSWM 147	Ignition Operations	2
FSWM 151	Basic Air Operations	1
FSWM 153	Intermediate Wildland Fire Behavior	2
FSWM 155	Initial Attack Incident Commander/Basic Incident Command System	3
FSWM 156	Firefighter Type 1 and Fire Line Leadership	3
Restricted Electives		
Select 12 hours from the following Restricted Electives:		12
ABUS 116	Principles of Supervision	
BIOL 107 & 107L	Principles of Plant Biology and Principles of Plant Biology Laboratory	
CHEM 121 & 121L	Principles of Chemistry-GTSC1 and Principles of Chemistry Laboratory-GTSC1	
EMTS 122	EMT Medical Emergencies	
ENGL 219	Introduction to Professional Writing-GTCO3	
ENVS 204 & 204L	Introduction to Ecosystem Management and Introduction to Ecosystem Management Laboratory	
ENVS 360 & 360L	Fire Ecology and Fire Ecology Laboratory	
EMDP 211	Introduction to Emergency Management	
FSWM 103	Expanded Dispatch Recorder	
FSWM 141	Introduction to Incident Information	
FSWM 143	Wildfire Chainsaws	
FSWM 149	Interagency Incident Business Operations	
FSWM 152	Helicopter Crew Member	
FSWM 154	Wildland Fire Origin & Cause Determination	
FSWM 162	Advanced Firefighter Position Task Book	
FSWM 196	Topics	
FSWM 200	Extended Attack Incident Commander	

FSWM 243	Fire Engine Operator	
FSWM 244	Wildland Training for Structural Fire Fighters	
FSWM 278	Supervised Work Experience	
FSWM 296	Topics	
FSWM 299	Internship	
MANG 121	Human Relations In Business	
MANG 201	Principles of Management	
Total Semester Credit Hours		**44**

Suggested Course Plan

First Year		
Fall Semester		**Semester Credit Hours**
FSWM 100	Introduction to Wildland Fire Basic Fire Guard School	5
FSWM 153	Intermediate Wildland Fire Behavior	2
ENGL 111	English Composition I-GTCO1	3
KINE 100	Health and Wellness	1
Essential Learning Social and Behavioral Science, History, Natural Sciences, Fine Arts or Humanities course		3
	Semester Credit Hours	**14**
Spring Semester		
FSWM 142	Portable Pumps and Water Use	2
FSWM 147	Ignition Operations	2
GEOG 131	Introduction to Cartography	3
MATH 108	Technical Mathematics	4
Restricted Electives		5
	Semester Credit Hours	**16**
Second Year		
Fall Semester		
FSWM 151	Basic Air Operations	1
FSWM 156	Firefighter Type 1 and Fire Line Leadership	3
Select one of the following:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communication	
SPCH 102	Speechmaking	
GEOL 103	Weather and Climate-GTSC2	3
KINA 127	Physical Conditioning	1
Essential Learning Social and Behavioral Science, History, Natural Sciences, Fine Arts or Humanities course		3
Restricted Electives		2
	Semester Credit Hours	**16**
Spring Semester		
FSWM 144	Fire Operations in the Wildland/Urban Interface	2
FSWM 155	Initial Attack Incident Commander/Basic Incident Command System	3
EMTS 115	Emergency Medical Responder	3
ENVS 101	Introduction to Environmental Science-GTSC2	3
Restricted Electives		5
	Semester Credit Hours	**16**
	Total Semester Credit Hours	**62**

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.

Women's and Gender Studies

Program Description

The Women's and Gender Studies minor recognizes the centrality of gender to a variety of disciplines, professions, personal experiences, and world views. Students will take coursework in disciplines such as Criminal Justice, English, History, Political Science, Psychology, and Sociology with an aim of developing an interdisciplinary understanding of issues related to women and gender in contemporary, literary, and historical contexts.

By augmenting students' chosen majors, the Women's and Gender Studies minor prepares students looking for strong interdisciplinary perspectives along their path to careers and/or further studies in social work, counseling, law, education, business, political science, and the arts, among others.

Contact Information

Department of Social and Behavioral Sciences
Houston Hall
970.248.1696

Programs of Study Bachelors/Minors

- Women's and Gender Studies (Minor) (p. 830)

Women's and Gender Studies (Minor)

Minor: Women's and Gender Studies
Program Code: M705

The Women's and Gender Studies Minor recognizes the centrality of gender to a variety of disciplines, professions, and personal experiences and world views. Students will take coursework in at least three academic disciplines with an aim toward developing an interdisciplinary understanding of issues related to women and gender in both contemporary and historical contexts.

By augmenting students' chosen majors, the Women's and Gender Studies minor prepares students looking for strong interdisciplinary perspectives along their path to careers and/or further studies in social work, counseling, law, education, business, and the arts, among others.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(15 semester hours)

- Students must take courses in at least three disciplines within the minor.
- Note that upper-division courses have prerequisites, which can be completed as a part of your Essential Learning courses; prerequisites may be waived solely at the instructor's discretion. Some upper-division courses are offered in alternate years; students are advised to plan accordingly.

Code	Title	Semester Credit Hours
SOCI 102	Introduction to Women's and Gender Studies-GTSS3	3
Select four additional courses of the following: [1]		12
CRMJ 330	Intimate Partner Violence	
CRMJ 375	Women and Crime	
ENGL 330	Women in World Thought and Literature	
HIST 370	Early United States Women's History	
HIST 371	20th Century United States Women's History	
HIST 425	History of Sexuality	
POLS 373	Global Politics of Women and Gender	
PSYC 335	Psychology of Women	
PSYC 411	Human Sexuality	
PSYP 410	Introduction to Marriage and Family Counseling	
SOCI 101	Introduction to Lesbian, Gay, Bisexual, and Transgender Studies-GTSS3	
SOCO 340	Sociology of Gender	

SOCO 345	Sociology of Sexuality
SOCO 351	21st Century Families
Or special course offerings such as Topics and Major Authors courses with the approval of minor advisor and Department Head	
Total Semester Credit Hours	**15**

[1] Students must take courses in at least three disciplines within the minor.

Advising and Graduation

Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the "Intent to Graduate" form.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.

PROGRAMS A-Z

To view program requirements for a previous year, visit either the archived program sheets page or the Catalog Archives. **Requirements for years 2017-2018 and earlier can be accessed via the archived program sheets page. Requirement for years 2018-2019 and later can be accessed via Catalog Archives.**

Each program page can be printed or saved. To do so:

- Navigate to the desired program page.
- Once on the correct program page, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

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The lists below outline programs offered at each of our three campuses as well as those that are offered in an online-only format. While these lists indicate the campus at which a given program is based, some courses may need to be completed online or at another campus. Additionally, some programs are offered on more than one campus, and students should make sure to enroll in courses on their campus of choice as they may be available at multiple locations. Please reach out to the contact for your Area of Study (p. 100) with questions or for more information.

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Programs by Area of Study

Additional information about each discipline listed below can be found through the Areas of Study page (p. 100).

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Associates

- Administrative Support, Applied Business (AAS) (p. 129)
- Frontline Supervision, Applied Business (AAS) (p. 131)
- Marketing Communications, Applied Business (AAS) (p. 133)

Certificates

- Administrative Support, Applied Business (Technical Certificate) (p. 135)
- Business Foundations, Applied Business (Technical Certificate) (p. 137)
- Graphics Technology, Applied Business (Technical Certificate) (p. 138)
- Management Foundations, Applied Business (Technical Certificate) (p. 139)
- Marketing Graphics Technology, Applied Business (Technical Certificate) (p. 140)
- Office Technology, Applied Business (Technical Certificate) (p. 142)

Applied Technology

Associates

- Applied Technology (AAS) (p. 144)

Archaeology

Bachelor/Minors

- Archaeology (Minor) (p. 147)

Art

Bachelors/Minors

- Art History (BA) (p. 155)
- Art History (Minor) (p. 158)
- Education: K-12 Education, Art (BFA) (p. 149)
- Film Studies and Digital Production (Minor) (p. 163)
- Studio Art (BA) (p. 159)
- Studio Art (Minor) (p. 162)
- Studio Art, Art (BFA) (p. 152)

Athletic Coaching and Officiating

Bachelors/Minors

- Athletic Coaching and Officiating (Minor) (p. 164)

Athletic Training

Graduate

- Athletic Training (MS) (p. 166)

Aviation Technology

Associates

- Fixed Wing, Aviation Technology (AAS) (p. 172)
- Fixed Wing, Aviation Technology with Prior FAA Pilot License (AAS) (p. 174)

Baking and Pastry

Associates

- Baking and Pastry (AAS) (p. 177)

Certificates

- Bakeshop Production (Technical Certificate) (p. 179)

Biological Sciences

Associates

- Biology, Liberal Arts (AS) (p. 196)

Bachelors/Minors

- Biology (Minor) (p. 198)
- Biology, Biological Sciences (BS) (p. 181)
- Cellular, Molecular, and Developmental Biology, Biological Sciences (BS) (p. 185)
- Ecology, Evolution, and Organismal Biology, Biological Sciences (BS) (p. 189)
- Education: Secondary Education, Biological Sciences (BS) (p. 192)

Business

Associates

- Business Administration, Liberal Arts (AA) (p. 238)

Bachelors/Minors

- Bachelor of Business Administration in Finance + Master of Business Administration (3+2) (p. 205)
- Bachelor of Science Construction Management + Master of Business Administration (3+2) (p. 288)
- Bachelor of Science in Accounting + Master of Business Administration (3+2) (p. 102)
- Business (Minor) (p. 240)
- Business Administration (BAS) (p. 205)
- Business Analytics (Minor) (p. 271)

- Business Analytics, Business Administration (BBA) (p. 232)
- Business Economics, Business Administration (BBA) (p. 208)
- Economics (Minor) (p. 241)
- Energy Management/Landman, Business Administration (BBA) (p. 211)
- Entrepreneurship (Minor) (p. 242)
- Entrepreneurship, Business Administration (BBA) (p. 214)
- Finance, Business Administration (BBA) (p. 217)
- Hospitality Management, Business Administration (BBA) (p. 220)
- Human Resource Management, Business Administration (BBA) (p. 223)
- International Business (Minor) (p. 243)
- International Business, Business Administration (BBA) (p. 226)
- Management, Business Administration (BBA) (p. 229)
- Marketing, Business Administration (BBA) (p. 235)

Certificates

- Entrepreneurship (Professional Certificate) (p. 244)
- Human Resource Management (Professional Certificate) (p. 245)
- Real Estate (Professional Certificate) (p. 731)
- Supervision (Technical Certificate) (p. 246)

Graduate

- Business Administration (MBA) (p. 202)

Business Analytics

(See Business (p. 199))

Chemistry

Bachelors/Minors

- Biochemistry, Chemistry (BS) (p. 249)
- Chemistry (BS) (p. 252)
- Chemistry (Minor) (p. 255)

Civil Engineering

Bachelors/Minors

- Civil Engineering, CMU/CU-Boulder Partnership Program (BSCE) (p. 256)

Classical Studies

Bachelors/Minors

- Classical Studies (Minor) (p. 257)

Commercial Driver's License Training

Certificates

- Commercial Driver's License Training (Technical Certificate) (p. 259)

Communication Studies

Bachelors/Minors

- Communication Studies (Minor) (p. 261)

Computer Information Systems

Bachelors/Minors

- Business Analytics (Minor) (p. 271)
- Computer Information Systems (BAS) (p. 263)
- Computer Information Systems (BS) (p. 266)
- Computer Information Systems (Minor) (p. 272)

Associates

- Business Computer Information Systems, Liberal Arts (AA) (p. 269)

Certificates

- Decision Support Systems (Professional Certificate) (p. 273)

Computer Science

Associates

- Computer Science, Liberal Arts (AS) (p. 277)

Bachelors/Minors

- Computer Science (BS) (p. 275)
- Computer Science (Minor) (p. 280)

Certificates

- Data Science (Professional Certificate) (p. 281)
- Web Application Development (Professional Certificate) (p. 282)

Construction Electrical

Associates

- Construction Electrical (AAS) (p. 284)

Certificates

- Construction Electrical (Technical Certificate) (p. 286)

Construction Management

Bachelors/Minors

- Bachelor of Science Construction Management + Master of Business Administration (3+2) (p. 288)
- Construction Management (BS) (p. 289)

Construction Technology

Associates

- Supervision, Construction Technology (AAS) (p. 292)

Criminal Justice

Associates

- Criminal Justice (AAS) (p. 304)

Bachelors/Minors

- Criminal Justice (BA) (p. 297)
- Criminal Justice (Minor) (p. 306)
- Forensic Investigation - Criminal Justice (Minor) (p. 307)
- POST Academy, Criminal Justice (BAS) (p. 300)

Graduate

- Criminal Justice Leadership and Policy (MA) (p. 295)

Culinary Arts

See also Baking and Pastry (p. 177).

Associates

- Culinary Arts (AAS) (p. 309)

Certificates

- Food Preparation (Technical Certificate) (p. 311)

Cybersecurity

Bachelors/Minors

- Cybersecurity (Minor) (p. 314)

Certificates

- Cybersecurity (Professional Certificate) (p. 313)

Dance

Bachelors/Minors

- Dance (BA) (p. 315)
- Dance (BFA) (p. 319)
- Dance (Minor) (p. 322)

Decision Support

(See Computer Information Systems (p. 263))

Dental Hygiene

Associates

No results were found.

Digital Filmmaking

Associates

- Digital Filmmaking: Production Design (AAS) (p. 324)
- Digital Filmmaking: Writing/Directing (AAS) (p. 326)

Certificates [1]

- Digital Filmmaking: Animation Principles I (Technical Certificate) (p. 328)
- Digital Filmmaking: Animation Principles II (Technical Certificate) (p. 329)
- Digital Filmmaking: Basic Production Design (Technical Certificate) (p. 333)
- Digital Filmmaking: Basic Writing/Directing (Technical Certificate) (p. 337)
- Digital Filmmaking: Drone Cinematography (Technical Certificate) (p. 330)
- Digital Filmmaking: Intermediate Production Design (Technical Certificate) (p. 335)
- Digital Filmmaking: Intermediate Writing/Directing (Technical Certificate) (p. 338)
- Digital Filmmaking: Production Design Elements (Technical Certificate) (p. 332)
- Digital Filmmaking: Writing/Directing Elements (Technical Certificate) (p. 336)
- Digital Filmmaking: Writing/Directing Principles I (Technical Certificate) (p. 340)
- Digital Filmmaking: Writing/Directing Principles II (Technical Certificate) (p. 341)
- Digital Filmmaking: Writing/Directing Principles III (Technical Certificate) (p. 342)

[1] Certificates progress in the following order: Elements, Basic, Intermediate.

Economics

(See Business (p. 199))

Education: Early Childhood

Associates

- Education: Early Childhood Education (AAS) (p. 354)
- Education: Early Childhood Education with Prior CDA /EQIT Certifications (AAS) (p. 356)
- Education: Early Childhood Education, Liberal Arts (AA) (p. 351)

Bachelors/Minors

- Education: Early Childhood Education, Inclusive Non-Licensure (BA) (p. 348)
- Education: Early Childhood Special Education, Early Childhood Education (BA) (p. 345)

Certificates

- Education: Early Childhood Education Assistant Teacher (Technical Certificate) (p. 358)
- Education: Early Childhood Education Director (Technical Certificate) (p. 359)
- Education: Early Childhood Education Director with CDA Infant Toddler (Technical Certificate) (p. 361)
- Education: Early Childhood Education Director with CDA Preschool & EQIT (Technical Certificate) (p. 364)
- Education: Early Childhood Education Director with CDA Preschool (Technical Certificate) (p. 362)
- Education: Early Childhood Education Entry-Level Teacher (Technical Certificate) (p. 366)
- Education: Early Childhood Education Teacher (Technical Certificate) (p. 367)
- Education: Early Childhood Education Teacher with CDA Infant Toddler (Technical Certificate) (p. 369)
- Education: Early Childhood Education Teacher with CDA Preschool or EQIT (Technical Certificate) (p. 371)

Education: Teacher Licensure

Graduate

- Applied Mathematics (Graduate Certificate) (p. 391)
- Education: Applied Mathematics (MAEd) (p. 373)
- Education: Educational Leadership (EDLD) (Graduate Certificate) (p. 393)
- Education: Educational Leadership (EDLD) (MAEd) (p. 375)

- Education: Exceptional Learner/Special Education (EDSE) (Graduate Certificate) (p. 394)
- Education: Exceptional Learner/Special Education (EDSE) (MAEd) (p. 377)
- Education: Initial Teacher Licensure - Elementary (Graduate Certificate) (p. 396)
- Education: Initial Teacher Licensure - Elementary (MAEd) (p. 379)
- Education: Initial Teacher Licensure - Secondary (Graduate Certificate) (p. 398)
- Education: Initial Teacher Licensure - Secondary (MAEd) (p. 380)
- Education: Initial Teacher Licensure K-12 Physical Education (Graduate Certificate) (p. 384)
- Education: Initial Teacher Licensure K-12 Physical Education (MAEd) (p. 382)
- Education: Rhetoric and Literary Studies (MAEd) (p. 387)
- Education: Social Science (MAEd) (p. 389)
- Education: Teaching and Leadership (EDTL) (MAEd) (p. 386)
- Rhetoric and Literary Studies (Graduate Certificate) (p. 399)
- Social Science (Graduate Certificate) (p. 401)

Electric Lineworker

Associates

- Electric Lineworker (AAS) (p. 404)

Certificates

- Electric Lineworker (Technical Certificate) (p. 406)

Electrical/Computer Engineering

Bachelors/Minors

See information provided in Electrical/Computer Engineering (p. 403) for CMU/CU-Boulder BS ECE partnership program.

- Electrical/Computer Engineering, CMU/CU-Boulder Partnership Program (BS ECEE) (p. 403)

Emergency Management and Disaster Planning

Certificates

- Emergency Management and Disaster Planning (Professional Certificate) (p. 408)

Emergency Medical Services

Associates

- EMT - Paramedic (AAS) (p. 410)

Certificates

- EMT - Basic (Technical Certificate) (p. 412)
- EMT - Paramedic (Technical Certificate) (p. 414)

Energy Management/Landman

Bachelors/Minors

- Energy Management/Landman, Business Administration (BBA) (p. 211)

Certificates

- Energy Management/Landman (Professional Certificate) (p. 416)

Engineering

(See Civil Engineering (p. 256), Electrical/Computer Engineering (p. 403), Mechanical Engineering (p. 606), or Mechanical Engineering Technology (p. 607).)

English

Bachelors/Minors

- Education: Secondary Education, English (BA) (p. 418)
- English (BA) (p. 422)
- English (Minor) (p. 428)
- Writing, English (BA) (p. 425)

Certificates

- Editing and Technical Communication (Professional Certificate) (p. 429)

Graduate

- Rhetoric and Literary Studies (Graduate Certificate) (p. 399)

Environmental Science and Technology

Bachelors/Minors

- Environmental Science and Technology (BS) (p. 431)
- Environmental Science and Technology (Minor) (p. 436)

Certificates

- Sustainability Practices (Professional Certificate) (p. 437)

Exercise Science

Bachelors/Minors

- Exercise Science (BS) (p. 438)
- Exercise Science (Minor) (p. 441)

Finance

(See Business (p. 199))

Fire Science Technology

Associates

- Fire Science Technology (AAS) (p. 443)
- Fire Science Technology with NFPA Certifications (AAS) (p. 445)

Certificates

- Fire Academy Level 1 (Technical Certificate) (p. 448)
- Fire Academy Level 1-NFPA Firefighter I/HazMat Certification (Technical Certificate) (p. 450)

Fitness and Health Promotion

Bachelors

- Fitness and Health Promotion (BS) (p. 452)

Forensic Anthropology

Bachelors/Minors

- Forensic Anthropology (Minor) (p. 455)

Forensic Investigation - Criminal Justice

(See Criminal Justice (p. 295))

Forensic Investigation - Psychology

(See Psychology (p. 717))

Forensic Science

Bachelors/Minors

- Forensic Science (Minor) (p. 457)

Geographic Information Science and Technology

Bachelors/Minors

- Geographic Information Science and Technology (Minor) (p. 458)

Certificates

- Geographic Information Science and Technology (Professional Certificate) (p. 460)

Geosciences

Associates

- Geology, Liberal Arts (AS) (p. 473)

Bachelors/Minors

- Education: Secondary Education, Geosciences (BS) (p. 469)
- Environmental Geology, Geosciences (BS) (p. 462)
- Geology (Minor) (p. 475)
- Geology, Geosciences (BS) (p. 466)
- Watershed Science (Minor) (p. 476)

Gerontology

Associates

- Gerontology Specialist (AAS) (p. 478)

Certificates

- Behavioral and Cognitive Care, Gerontology (Technical Certificate) (p. 480)
- End of Life Care, Gerontology (Technical Certificate) (p. 481)

Graphic Design

Bachelors/Minors

- Graphic Design (BFA) (p. 484)
- Graphic Design (Minor) (p. 492)
- Visual Design, Graphic Design (BFA) (p. 487)

Associates

- Graphic Design (AA) (p. 490)

Heating, Ventilation, and Air Conditioning

Associates

- Heating, Ventilation, and Air Conditioning Technician (AAS) (p. 494)

Certificates

- HVAC: HVAC Fundamentals (Technical Certificate) (p. 496)
- Plumbing Service I (Technical Certificate) (p. 497)

History

Bachelors/Minors

- Education: Secondary Education, History (BA) (p. 502)
- History (BA) (p. 499)
- History (Minor) (p. 506)
- Public History (Minor) (p. 507)

Hospitality Management

Associates

- Hospitality Management (AAS) (p. 511)

Bachelors/Minors

- Hospitality Management (BAS) (p. 509)
- Hospitality Management (BBA) (p. 220)
- Hospitality Management (Minor) (p. 513)

Humanities

Associates

- Humanities, Liberal Arts (AA) (p. 514)

Information and Communication Technology

Associates

- Information and Communication Technology (AAS) (p. 517)

Certificates

- Computer Repair, Information and Communication Technology (Technical Certificate) (p. 519)
- Healthcare Information Networking, Information and Communication Technology (Technical Certificate) (p. 521)
- Help Desk Technician, Information and Communication Technology (Technical Certificate) (p. 522)
- Network Technician, Information and Communication Technology (Technical Certificate) (p. 524)

Innovation

Professional Certificate

- Innovation (Professional Certificate) (p. 526)

International Studies

Bachelors/Minors

- International Studies (Minor) (p. 527)

Jazz Studies

(See Music (p. 626))

Kinesiology

Bachelors/Minors

- Adapted Physical Education, Kinesiology (BA) (p. 530)
- Education: K-12 Education, Kinesiology (BA) (p. 532)

Certificates

- Personal Training (Professional Certificate) (p. 536)

Land Surveying and Geomatics

Associates

- Land Surveying and Geomatics (AAS) (p. 538)

Certificates

- Land Surveying and Geomatics (Technical Certificate) (p. 540)

Liberal Arts

Associates

- Biology, Liberal Arts (AS) (p. 196)
- Business Administration, Liberal Arts (AA) (p. 238)
- Business Computer Information Systems, Liberal Arts (AA) (p. 269)
- Computer Science, Liberal Arts (AS) (p. 277)
- Education: Early Childhood Education, Liberal Arts (AA) (p. 351)
- Geology, Liberal Arts (AS) (p. 473)
- Humanities, Liberal Arts (AA) (p. 514)
- Mathematics, Liberal Arts (AS) (p. 601)
- Physics, Liberal Arts (AS) (p. 708)
- Social Science, Liberal Arts (AA) (p. 736)
- Sport Management, Liberal Arts (AS) (p. 769)
- University Studies, Liberal Arts (AA) (p. 559)

Bachelors/Minors

- Education: Elementary Education, English, Liberal Arts (BA) (p. 544)
- Education: Elementary Education, Mathematics, Liberal Arts (BA) (p. 547)
- Education: Elementary Education, Social Science, Liberal Arts (BA) (p. 551)
- General Studies, Liberal Arts (BA) (p. 555)
- Interdisciplinary Studies, Liberal Arts (BAS) (p. 557)

Manufacturing Technology

Associates

- Machining Technology, Manufacturing Technology (AAS) (p. 562)
- Welding Technology, Manufacturing Technology (AAS) (p. 564)

Certificates

- Architectural Drafting, Manufacturing Technology (Technical Certificate) (p. 566)
- Basic Welder, Manufacturing Technology (Technical Certificate) (p. 568)
- Civil Drafting, Manufacturing Technology (Technical Certificate) (p. 569)
- CNC Machinist, Manufacturing Technology (Technical Certificate) (p. 570)
- Computer Aided Design/Computer Aided Manufacturing (CAD/CAM), Manufacturing Technology (Technical Certificate) (p. 571)
- Entry Level Machining, Manufacturing Technology (Technical Certificate) (p. 573)
- Machine and Manufacturing Trades, Manufacturing Technology (Technical Certificate) (p. 574)
- Manual Machinist, Manufacturing Technology (Technical Certificate) (p. 575)
- Mechanical Drafting, Manufacturing Technology (Technical Certificate) (p. 577)
- Welding Technology, Manufacturing Technology (Technical Certificate) (p. 578)

Mass Communication

Bachelors/Minors

- Mass Communication (Minor) (p. 583)
- Media Strategies and Applications, Mass Communication (BA) (p. 580)

Mathematics

Associates

- Mathematics, Liberal Arts (AS) (p. 601)

Bachelors/Minors

- Actuarial Science, Mathematics (BS) (p. 587)
- Applied Mathematics, Mathematics (BS) (p. 589)
- Education: Secondary Education, Mathematics (BS) (p. 595)
- Mathematics (BS) (p. 592)
- Mathematics (Minor) (p. 604)
- Statistics (Minor) (p. 605)
- Statistics, Mathematics (BS) (p. 599)

Graduate

- Applied Mathematics (Graduate Certificate) (p. 373)

Mechanical Engineering

Bachelors/Minors

- Mechanical Engineering, CMU/CU-Boulder Partnership Program (BSME) (p. 606)

Mechanical Engineering Technology

Associates

- Mechanical Engineering Technology (AAS) (p. 611)

Bachelors

- Mechanical Engineering Technology (BS) (p. 607)

Mechatronics

Associates

- Mechatronics (AAS) (p. 613)

Certificates

- Mechatronics: Automation and Instrumentation (Technical Certificate) (p. 615)
- Mechatronics: Electronics Technician (Technical Certificate) (p. 617)

Medical Laboratory Technician

Associates

- Medical Laboratory Technician (AAS) (p. 619)

Medical Office Assistant

Associates

- Medical Office Assistant (AAS) (p. 622)

Certificates

- Medical Office Assistant (Technical Certificate) (p. 624)

Music

Bachelors/Minors

- Education: Music Education K-12 (BME) (p. 647)
- Music Performance: Instrumental (BM) (p. 633)
- Music Performance: Keyboard (BM) (p. 636)
- Music Performance: Vocal (BM) (p. 640)
- Music with Elective Studies in Business (BM) (p. 643)
- Music: Commercial Music (BA) (p. 630)
- Music: Instrumental (Minor) (p. 655)
- Music: Jazz Studies (Minor) (p. 654)
- Music: Liberal Arts (BA) (p. 627)
- Music: Vocal (Minor) (p. 656)

Nurse Aide

Certificates

- Nurse Aide (Technical Certificate) (p. 658)

Nursing

Associates

- Nursing (AAS) (p. 677)

Bachelors/Minors

- LPN to BSN, Nursing (BSN) (p. 669)
- Nursing (BSN) (p. 672)
- RN to BSN, Nursing (BSN) (p. 675)

Certificates

- Practical Nursing (Technical Certificate) (p. 680)

Graduate

- Adult-Gerontology Nurse Practitioner (MSN) (p. 663)
- Doctor of Nursing Practice - Family Nurse Practitioner (DNP-FNP) (p. 661)
- Family Nurse Practitioner, Nursing (MSN) (p. 665)
- Nurse Educator, Nursing (MSN) (p. 667)

Occupational Therapy

Graduate

- Occupational Therapy (MS) (p. 683)

Outdoor Recreation Industry Studies

Bachelors/Minors

- Outdoor Recreation Industry Studies (BS) (p. 685)
- Outdoor Recreation Studies (Minor) (p. 688)

Paramedic

(See Emergency Medical Services (p. 410))

Peace Officer Standards and Training (POST)

Certificates

- Peace Officer Academy - Peace Officer Standards and Training (POST) (Technical Certificate) (p. 691)

Personal Training

(See Kinesiology (p. 529))

Pharmacy Technician

Associates

- Pharmacy Technician (AAS) (p. 693)

Certificates

- Entry-Level Pharmacy Technician (Technical Certificate) (p. 695)

Philosophy

Minors

- Philosophy (Minor) (p. 697)

Physical Therapy
Graduate
- Physical Therapy (DPT) (p. 699)

Physician Assistant
Graduate
- Physician Assistant (MPAS) (p. 702)

Physics
Associates
- Physics, Liberal Arts (AS) (p. 708)

Bachelors/Minors
- Physics (BS) (p. 705)
- Physics (Minor) (p. 710)

Political Science
Bachelors/Minors
- Political Science (BA) (p. 712)
- Political Science (Minor) (p. 715)

Psychology
Bachelors/Minors
- Counseling Psychology, Psychology (BA) (p. 717)
- Forensic Investigation - Psychology (Minor) (p. 723)
- Psychology (BA) (p. 720)
- Psychology (Minor) (p. 724)

Public History
(See History (p. 499))

Radiologic Sciences
Bachelors/Minors
- Radiologic Sciences (BSRS) (p. 725)

Certificates
- Computed Tomography (Professional Certificate) (p. 728)
- Diagnostic Medical Sonography (Professional Certificate) (p. 730)

Real Estate
Certificates
- Real Estate (Professional Certificate) (p. 731)

Respiratory Therapy
Associates
- Respiratory Therapy (AAS) (p. 733)

Social Science
Associates
- Social Science, Liberal Arts (AA) (p. 736)

Graduate
- Social Science (Graduate Certificate) (p. 401)

Social Work
Bachelors/Minors
- Social Work (BSW) (p. 745)
- Social Work (Minor) (p. 748)

Graduate
- Social Work: Advanced Standing (MSW) (p. 739)
- Social Work: Foundation (MSW) (p. 742)

Sociology
Bachelors/Minors
- Sociology (BA) (p. 749)
- Sociology (Minor) (p. 752)

Spanish
Bachelors/Minors
- Education: Secondary Education, Spanish (BA) (p. 757)
- Hispanic Studies, Spanish (BA) (p. 754)
- Spanish (Minor) (p. 760)
- Translation and Interpreting, Spanish (BA) (p. 761)

Sport Management
Associates
- Sports Management, Liberal Arts (AS) (p. 769)

Bachelors/Minors
- Sport Management (BS) (p. 767)
- Sport Management (Minor) (p. 771)

Graduate
- Sport Management (MS) (p. 765)

Statistics
(See Mathematics (p. 586))

Studio Art
(See Art (p. 148))

Supervision
(see Business (p. 199))

Surgical Technology
Associates
- Surgical Technology (AAS) (p. 775)

Sustainability Practices
Certificates
- Sustainability Practices (Professional Certificate) (p. 437)

Sustainable Agriculture

Associates

- Sustainable Agriculture (AAS) (p. 778)

Teacher Education

(See Art (p. 148), Early Childhood Education (p. 344), Education: Teacher Licensure (p. 373), English (p. 418), History (p. 499), Kinesiology (p. 529), Liberal Arts (p. 543), Mathematics (p. 586), Music (p. 626), and Social Science (p. 736) for graduate and undergraduate programs)

Theatre Arts

Bachelors/Minors

- Acting/Directing, Theatre Arts (BFA) (p. 782)
- Design/Technology, Theatre Arts (BFA) (p. 788)
- Music Theatre, Theatre Arts (BFA) (p. 785)
- Theatre (Minor) (p. 795)
- Theatre Arts, General (BA) (p. 792)

Transportation Services

Associates

- Advanced Automotive Service Technician, Transportation Services (AAS) (p. 797)
- Diesel Technology, Transportation Services (AAS) (p. 799)

Certificates

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- Diesel Mechanics, Transportation Services (Technical Certificate) (p. 804)
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- Light Duty Automotive Technician Foundations I, Transportation Services (Technical Certificate) (p. 807)
- Light Duty Automotive Technician Foundations II, Transportation Services (Technical Certificate) (p. 809)
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Unmanned Aircraft Systems

Certificates

- Pilot Small UAS, Unmanned Aircraft Systems (Technical Certificate) (p. 812)

Veterinary Technology

Associates

- Veterinary Technology (AAS) (p. 814)

Viticulture and Enology

Associates

- Viticulture and Enology (AAS) (p. 817)

Certificates

- Viticulture and Enology: Enology (Technical Certificate) (p. 819)
- Viticulture and Enology: Viticulture (Technical Certificate) (p. 820)
- Viticulture and Enology: Wine Appreciation (Technical Certificate) (p. 822)
- Viticulture and Enology: Wine Fermentation (Technical Certificate) (p. 823)
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Watershed Science

(See Geosciences (p. 462))

Wildland Fire Management

Associates

- Wildland Fire Management (AAS) (p. 827)

Women's and Gender Studies

Bachelors/Minors

- Women's and Gender Studies (Minor) (p. 830)

COURSE DESCRIPTIONS

The course descriptions in this catalog indicate the content of the course and prerequisites when applicable. Courses are listed in alphabetical order with a four-letter prefix code, followed by number and title. The number at the end of the course title indicates the credit granted, in terms of semester hours, for each course. Generally, the number of semester hours is the number of times a class will meet each week. Exceptions are noted in individual course descriptions and, in most cases, prerequisites and/or corequisites stated. Unless otherwise specified, the minimum passing grade for all prerequisite courses is a C. The course number after the prefix indicates the college year in which the courses should ordinarily be taken.

Course Number	College Year
100-199	Freshman year
200–299	Sophomore year
300–399	Junior year
400–499	Senior year

Courses numbered 01-099 are developmental in nature, not intended for transfer purposes, and will not usually fulfill degree requirements.

Colorado Mesa University reserves the right to withdraw any program or course which is not justified due to lack of enrollment or availability of instructor. Other courses may be added if there is sufficient demand. Certain courses are only offered during the fall or spring semesters, or may be available only in alternating years. It is the student's responsibility to meet with their advisor and check the two-year course matrix on the Colorado Mesa University website for course availability. Learn more on the Colorado Mesa University Academics page.

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- Addictions Counseling (ADAP) (p. 853)
- Agricultural Science (AGRS) (p. 854)
- Airframe and Powerplant Mechanic (APMT) (p. 855)
- Anthropology (ANTH) (p. 856)
- Applied Business (ABUS) (p. 858)
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Accounting (ACCT)

Courses

ACCT 201 Principles of Financial Accounting 3 Credits
Introduction to bookkeeping, generally accepted accounting principles, and financial statements.
Terms Typically Offered: Fall, Spring, Summer.

ACCT 202 Principles of Managerial Accounting 3 Credits
Introduction to the use of accounting information in managerial decision making, control, and planning.
Prerequisites: ACCT 201.
Terms Typically Offered: Fall, Spring, Summer.

ACCT 311 Advanced Managerial Accounting 3 Credits
An advanced course primarily for non-accounting majors that provides in-depth coverage on the applications of accounting information in decision-making, organization, control and planning.
Prerequisites: ACCT 202.

ACCT 321 Intermediate Accounting I 3 Credits
Development of an intermediate understanding of Generally Accepted Accounting Principles and their application to external financial statements.
Prerequisites: ACCT 201.
Terms Typically Offered: Fall.

ACCT 322 Intermediate Accounting II 3 Credits
Continued exploration of Generally Accepted Accounting Principles and their application to more advanced financial statement components.
Prerequisites: ACCT 321.
Terms Typically Offered: Spring.

ACCT 331 Cost Accounting 3 Credits
Costs and their relationship to planning, controlling, inventory valuation, and decision making.
Prerequisites: ACCT 202.

ACCT 350 Ethics for Accounting Professionals 3 Credits
The field of ethics as applied to the accounting and finance professions. Ethical standards of the profession, accounting and finance scandals in recent history, and methods to overcome ethical dilemmas encountered as professionals.
Prerequisites: ACCT 321.

ACCT 360 Professional Preparation I 1 Credit
Communication skills and other soft skills needed to be successful as an accounting professional, including higher order thinking, written and oral communication, effective and responsible use of social and other electronic media, and ethical considerations of the communication process.
Prerequisites: ACCT 201, ACCT 202, and ACCT 321.
Terms Typically Offered: Fall, Spring.

ACCT 392 Accounting Information Systems 3 Credits
A study of the concepts and design of the Accounting Information System with emphasis on the internal control structures, requirements, and professional standards.
Prerequisites: ACCT 321.

ACCT 393 Cooperative Education 3-12 Credits
Cooperative Education provides students an opportunity to put their education to practical use in the workplace under the joint supervision of an employer participating in the Cooperative Education program and a faculty member designated by the institution. (See "Cooperative Education" in this catalog).
Course may be taken multiple times up to maximum of 15 credit hours.

ACCT 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

ACCT 396 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ACCT 399 Internship 1-10 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ACCT 401 Governmental & Nonprofit Accounting 3 Credits
Accounting principles as they apply to governmental and not-for-profit entities.
Prerequisites: ACCT 322.
Terms Typically Offered: Fall.

ACCT 402 Advanced Accounting 3 Credits
Consolidated financial statements, partnership accounting, bankruptcy, and international operations.
Prerequisites: ACCT 322.

ACCT 411 Auditing I 3 Credits
Scope and purposes of the attestation work of a certified public accountant focusing on generally accepted auditing standards (GAAS). Includes theory of auditing, professional ethics, legal liability of the auditor, and internal control.
Prerequisites: ACCT 322.
Terms Typically Offered: Fall.

ACCT 412 Auditing II 3 Credits
Continuation of ACCT 411. This course provides coverage of the application of auditing theory to financial statements, including examination of the audit programs, procedures, and work papers used in each phase of an audit.
Prerequisites: ACCT 411; and CISB 241 or STAT 241.
Terms Typically Offered: Spring.

ACCT 441 Individual Income Tax 4 Credits
In-depth treatment of federal income tax law as it relates to individual taxpayers. Introduction to basic tax research.
Prerequisites: ACCT 322, and senior standing.
Terms Typically Offered: Fall.

ACCT 442 Advanced Tax and Tax Research 5 Credits
Federal income tax law for C corporations, S corporations, and partnerships. Introduction to federal gift transfer tax. Required participation in the Volunteer Income Tax Assistance Program to acquire practical experience in communication with taxpayers and preparation of tax returns.
Prerequisites: ACCT 441.
Terms Typically Offered: Spring.

ACCT 460 Professional Preparation II 1 Credit
This course is a concentrated review of accounting subjects in preparation for the CPA exam using self-study techniques and professor-led discussions and review.
Prerequisites: ACCT 201, ACCT 202, ACCT 321, ACCT 322, ACCT 360, ACCT 401, and ACCT 441.

ACCT 470 Fraud and Forensic Accounting 3 Credits
Exploration of investigative techniques, interviewing techniques, and reporting processes at different levels of judicial and prosecutorial environments. Specific skills in detecting and investigating fraud developed and various reporting methodologies explored. Includes presentations and speakers from fraud investigative environments.
Prerequisites: ACCT 201.

ACCT 471 Data Analytics for Accounting 3 Credits
Study of the use of big data and analytics for accounting, including its history and current trends. Application of data analysis techniques to transform raw data into useful decision-making information and communicate those results in a meaningful way for stakeholders.
Prerequisites: ACCT 322; CISB 241 or STAT 241.
Terms Typically Offered: Fall, Spring, Summer.

ACCT 473 Fraud Legalities 3 Credits
Study of both civil and criminal systems, procedures, and laws, as well as related areas that pertain to criminal financial activity and fraud.
Prerequisites: BUGB 351.
Terms Typically Offered: Fall, Spring, Summer.

ACCT 475 Fraud Examination 3 Credits
Study of financial transactions and schemes, law, and investigations, as well as fraud prevention and deterrence in preparation for the Certified Fraud Examination (CFE) administered through the Association of Certified Fraud Examiners.
Prerequisites: BUGB 351; ACCT 470; ACCT 471; and Senior Standing.
Terms Typically Offered: Fall, Spring, Summer.

ACCT 480 Accounting Externship 1-12 Credits
Practical, staff-level experience creating accounting work products for an employer. Further development of skills learned in completed accounting baccalaureate coursework.
Prerequisites: Admission to the Professional Certificate in Accounting Practice program.
Terms Typically Offered: Fall, Spring, Summer.
Course may be taken multiple times up to maximum of 12 credit hours.

ACCT 493 Cooperative Education 3-12 Credits
See description of ACCT 393.
Course may be taken multiple times up to maximum of 15 credit hours.

ACCT 495 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

ACCT 496 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ACCT 499 Internship 1-9 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ACCT 500 Managerial Accounting 3 Credits
Provides students with an understanding of management information systems which are used in the decision-making process. The class is designed with a "hands-on" approach. It will encourage student participation and interaction through the use of computer projects, case studies, and classroom discussion. Topics covered include basic cost accounting concepts and terminology, product costing and pricing, planning and controlling a business operation through budgets and variance analysis, and managerial decision-making using such techniques as cost-volume-profit analysis and variable costing.

ACCT 505 Advanced Fraud and Forensic Accounting 3 Credits
Exploration of investigative techniques, interviewing techniques, and reporting processes at different levels of judicial and prosecutorial environments. Specific skills in detecting and investigating fraud are developed, and various reporting methodologies are explored. Includes presentations and speakers from fraud investigative environments.
Terms Typically Offered: Spring.

Addictions Counseling (ADAP)

Courses

ADAP 301 Foundations of Addictions Counseling 1 Credit
Provides a foundation for the theoretical, practical, and applied addictions counseling skills necessary for individuals wanting to work in the addictions field.
Prerequisites: PSYC 233.

ADAP 350 Cultural and Ethical Issues in Addictions Treatment 1 Credit
Provides an overview of ethical, cultural, and legal considerations associated with the field of addictions.
Prerequisites: ADAP 301.

ADAP 380 Pharmacology and Addictions 1 Credit
Provides an overview of pharmacology and infectious diseases associated with the field of addictions.
Prerequisites: ADAP 301.

ADAP 401 Special Populations and Addictions 1 Credit
Outlines the unique treatment needs of special addiction populations and the promising new practices within the addictions field.
Prerequisites: ADAP 301.

ADAP 420 Addiction Counseling Approaches 1 Credit
Outlines the different evidence-based treatment approaches in the addictions field.
Prerequisites: ADAP 301 and ADAP 350.

ADAP 450 Addictions Assessment and Group Counseling 1 Credit
Exploration of the approaches to addictions clinical assessment, treatment planning and group counseling skills as outlined by the Colorado Office of Behavioral Health. Meets the educational requirements for becoming a Certified Addictions Counselor Level II.
Prerequisites: ADAP 301.
Terms Typically Offered: Fall, Spring.

ADAP 460 Advanced Addictions Practice 1 Credit
Exploration of the clinical addictions practices and advanced motivational interviewing as outlined by the Colorado Office of Behavioral Health (OBH). Meets the educational requirements for becoming a Certified Addictions Counselor Level III.
Prerequisites: ADAP 301.
Terms Typically Offered: Summer.

ADAP 470 Addictions Clinical Supervision 1 Credit
Introduction to the core competencies for addictions supervision. Meets the Certified Addictions Counselor Level three (CAC III) requirements as outlined by the Colorado Office of Behavioral Health (OBH) for Clinical Supervision I and II.
Prerequisites: ADAP 301.
Terms Typically Offered: Summer.

ADAP 499 Internship 1-3 Credits
Professional practice with individuals, groups, and communities in various sites under professional supervision.
Course may be taken multiple times up to maximum of 10 credit hours.

Agricultural Science (AGRS)

Courses

AGRS 100 Practical Crop Production 3 Credits
Production and adaptation of cultivated crops. Emphasis on crops grown in the western region of the United States. Growth, development, production, and use covered.
Corequisites: AGRS 100L.
Terms Typically Offered: Fall.

AGRS 100L Practical Crop Production Laboratory 1 Credit
Production and adaptation of cultivated crops. Emphasis on crops grown in the western region of the United States. Growth, development, production, and use covered.
Corequisites: AGRS 100.
Terms Typically Offered: Fall.
Fees: Yes.

AGRS 102 Agriculture Economics 3 Credits
Focus on economic principles applied to agriculture through price discovery with producer supply and consumer demand, governmental politics, rural development, and resource management.

AGRS 105 Animal Science 3 Credits
Fundamentals of livestock production. Principles of breeding, genetics, nutrition, health, and physiology of beef, sheep, swine, dairy, and horses. Focus on the animal science industry in general and each species industry in regard to history, current situation, and future.
Terms Typically Offered: Spring.

AGRS 108 Making Compost 3 Credits
Exploration of the microbiology behind composting and procedures for various types of composting. Evaluation of quality compost and its applications (including compost tea making) for soil health and plant fertility needs. Also included is making compost inoculants and fermenting plant juices for sustainable fertility applications.
Terms Typically Offered: Fall.

AGRS 110 Integrated Pest Management 3 Credits
Identification and control of economically important insects and diseases. Use of ecological systems management approach and concepts, including physical, biological and pesticidal control mechanisms.
Terms Typically Offered: Fall.

AGRS 118 Farm Structures and Green Houses 3 Credits
Safety, hand and power tool use, farm building planning and site location, concrete, farm building design and construction, and materials of construction. Greenhouse design, systems, management, and major greenhouse crops and their cultural needs.

AGRS 125 Agricultural Machinery and Technology 3 Credits
Emphasizes the safe operation, construction, purpose, maintenance, and adjustment of farm machinery.
Terms Typically Offered: Fall.

AGRS 131 Water and Irrigation: Principles and Practices 2 Credits
Exploration of water, soil, and plant relationships; water quality assessment; principles of irrigation, methods, and systems.
Prerequisites: AGRS 100/AGRS 100L.
Corequisites: AGRS 131L.
Terms Typically Offered: Spring.

AGRS 131L Water and Irrigation: Principles and Practices Laboratory 1 Credit
Exploration of water, soil, and plant relationships; water quality assessment; principles of irrigation, methods, and systems.
Prerequisites: AGRS 100/AGRS 100L.
Corequisites: AGRS 131.
Terms Typically Offered: Spring.
Fees: Yes.

AGRS 195 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

AGRS 196 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

AGRS 205 Farm and Ranch Management 3 Credits
Practical experience in applying principles of economics, business, marketing, and finance to the management of a farm/ranch operation.
Terms Typically Offered: Spring.

AGRS 208 Agricultural Finance 3 Credits
Principles of finance and their application to agriculture and agribusiness, including: the time value of money, net present value analysis, interest, credit lending institutions, financial statements, and financial ratios.
Terms Typically Offered: Spring.

AGRS 210 Agricultural Marketing 3 Credits
Applied study of the agricultural marketing system. Methods of marketing crops and livestock. Hedging with futures and options will be covered along with direct sales marketing and building a business brand.
Terms Typically Offered: Spring.

AGRS 224 Integrated Ranch Management 3 Credits
Management pertaining to the economics of a ranching enterprise. Includes principles of system management, resource inventory and management, ranch decision making, nutrition, selection, record keeping, financial management, and marketing.

AGRS 225 Feeds and Feeding 4 Credits
Basic nutrients, common feeds and feed additives, anatomy of digestive systems, and basic feeding practices for beef, sheep, and dairy. Lab devoted to calculating and balancing rations to fulfill nutrient requirement of farm animals for growth, finishing, reproduction, lactation, work, and wool production. Explores least cost ratio balancing.
Terms Typically Offered: Fall.

AGRS 230 Farm Animal Anatomy and Physiology 3 Credits
Introduction to basic concepts of farm animal anatomy and physiology. Emphasizes nutrition, reproduction, immunology, and growth of the basic farm species. Anatomy and physiology is taught in the context of applying basic principles to production practices in the industry, including reproductive management, livestock nutrition management, and animal health practices.
Prerequisites: AGRS 105.
Terms Typically Offered: Spring.

AGRS 240 Introduction to Soil Science 3 Credits
Formation, physical properties, chemical properties, and management of soils, emphasizing conditions affecting plant growth. Defining the components of soil health and how to manage them.
Prerequisites: AGRS 100.
Corequisites: AGRS 240L.
Terms Typically Offered: Fall.

AGRS 240L Introduction to Soil Science Laboratory 1 Credit
Formation, physical properties, chemical properties, and management of soils, emphasizing conditions affecting plant growth. Defining the components of soil health and how to manage them.
Prerequisites: AGRS 100.
Corequisites: AGRS 240.
Terms Typically Offered: Fall.
Fees: Yes.

AGRS 250 Live Animal and Carcass Evaluation 1 Credit
Exploration of meat carcass evaluation and the related yield and quality grading system. Emphasizes selection of breeding stock based on performance data. Covers comparative selection, grading, and judging of market and breeding classes of livestock based on knowledge of phenotype, performance, information, and/or carcass merit.
Prerequisites: AGRS 105.
Corequisites: AGRS 250L.
Terms Typically Offered: Spring.

AGRS 250L Live Animal and Carcass Evaluation Laboratory 2 Credits
Exploration of meat carcass evaluation and the related yield and quality grading system. Emphasizes selection of breeding stock based on performance data. Covers comparative selection, grading, and judging of market and breeding classes of livestock based on knowledge of phenotype, performance, information, and/or carcass merit.
Prerequisites: AGRS 105.
Corequisites: AGRS 250.
Terms Typically Offered: Spring.

AGRS 260 Plant Propagation 3 Credits
Theory, biology, and practical applications of plant propagation technologies. Propagation by seed, cuttings, budding, grafting, and layering. Propagation environment, techniques of stock plant management, and seed handling along with production calculations and a complete production calendar will be investigated.
Terms Typically Offered: Spring.

AGRS 265 Integrated Plant Health Management 3 Credits
Multi-faceted approaches to the management of plant health through analysis of soil characteristics, nutrients, irrigation, and integrated pest management techniques for reducing pest susceptibility and enhancing crop production yield and quality.
Prerequisites: AGRS 100/AGRS 100L.

AGRS 288 Livestock Practicum 3 Credits
Experiential learning with beef cattle, dairy cattle, swine, and sheep.
Terms Typically Offered: Fall.
Fees: Yes.

AGRS 293 Cooperative Experience/Internship 5 Credits
Employment in an agricultural production setting. Work experience in all facets of the operation. Guidance and supervision is the responsibility of the supervising employer and Coordinator of Production Agriculture. Emphasis on records, managerial decisions, and production agriculture skills.
Terms Typically Offered: Summer.

AGRS 295 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

AGRS 296 Topics: 1-4 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Airframe and Powerplant Mechanic (APMT)

Courses

APMT 101 Introduction to Airframe and Powerplant Mechanic 4 Credits
Introduction to basic subjects, such as mathematics, physics, and aircraft drawings. Provides a foundation for further studies in the Airframe and Powerplant Mechanic program.
Terms Typically Offered: Fall.

APMT 102 Regulations and Computations 4 Credits
Aircraft weight and balance theory and the performance of weight and balance calculations. Covers the requirements for ground handling, servicing, taxiing, and towing aircraft. Focuses on the Federal Aviation Administration and manufacturer's publications pertaining to aircraft operation and maintenance.
Terms Typically Offered: Fall.

APMT 103 Aircraft Materials I 4 Credits
Aircraft structures, materials, and hardware, use of precision measuring tools, and methods of non-destructive testing. Emphasizes causes of corrosion and methods to prevent and treat corrosion. Covers construction of rigid and flexible aircraft fluid lines. Focuses on application, maintenance, and repair of aircraft structural wood and fabric covering materials, and the application and maintenance of protective finishes.
Terms Typically Offered: Fall.

APMT 104 Aircraft Systems for Airframe & Powerplant I 4 Credits
Aircraft flight instrument theory and operation and the inspection, maintenance, and installation requirements for these systems. Focuses on the operation of aircraft fuel systems and the procedures utilized in inspecting, troubleshooting, and maintaining these systems.
Terms Typically Offered: Fall.

APMT 111 Electrical Systems in Aircraft 4 Credits
Introduction to basic electric theory as applied to aircraft systems. Focuses on the operation, troubleshooting, and repair of aircraft electrical systems, with emphasis on alternators, motors, lighting systems, wiring, and circuit protection devices. Study of currents and circuits, with emphasis on solid state and optical electric systems. Includes engine instruments that indicate pressure, temperature, position, and speed.
Terms Typically Offered: Spring.

APMT 113 Aircraft Materials II 4 Credits
Procedures, appropriate hardware selection, and principles of making repairs when working with aluminum alloys. Introduces methods of working with aircraft steel, including soldering and welding. Focuses on materials and principles of aircraft control rigging and the replacement of structural aircraft components. Performance of 100-hour and special inspections. Introduces the maintenance and repair of composite materials.
Terms Typically Offered: Spring.

APMT 114 Aircraft Systems for Airframe & Powerplant II 4 Credits
Hydraulic principles, hydraulic fluids, system components, and operation of hydraulic and pneumatic systems. Study of airframe systems, including communication, navigation, fire warning and extinguishing, and cabin atmospheric control. Focuses on operation, troubleshooting, and repair of aircraft landing gear systems.
Terms Typically Offered: Spring.

APMT 118 Systems Troubleshooting 1 Credit
Introduction to principles of troubleshooting systems and methods of analyzing problems. Helps students to better understand aircraft systems and extends these principles to troubleshooting of other complex aircraft systems.
Terms Typically Offered: Spring.

APMT 205 Reciprocating Engines I 4 Credits
Theory, operating principles, and construction features of aircraft reciprocating engines. Reviews aircraft fuel delivery system components and operating principles. Studies carburetor and fuel injection system controls that meter fuel to the engine.
Terms Typically Offered: Fall.

APMT 206 Reciprocating Engines II 4 Credits
Introduction to aircraft piston engine ignition systems, including classifications, components, theory, starting systems, maintenance, servicing, and repair. Designed for the second-year student working toward the FAA Powerplant rating. Focuses on engine maintenance and overhaul procedures and includes an actual engine overhaul. Introduces the study of aircraft propellers, including fixed pitch, constant speed, feathering, reversing, and de-icing systems.
Terms Typically Offered: Fall.

APMT 215 Turbine Engines I 4 Credits
Study of turbine engine fuel delivery, fuel control operation, fuel control design, and maintenance procedures. Covers turbo-prop system components, operations, and maintenance, including operation of a feathering and reversing turbo-prop.
Terms Typically Offered: Fall.

APMT 216 Turbine Engines II 4 Credits
Study of turbine engine starting, ignition, instrument, and fire protection systems, and the maintenance of these systems. Focuses on maintenance and inspection practices pertaining to turbine aircraft engines.
Terms Typically Offered: Fall.

APMT 218 Engine Troubleshooting 1 Credit
Introduction to principles of troubleshooting engine issues and methods of analyzing problems. Focuses on better understanding of aircraft engines and extends the principles to troubleshooting of related complex aircraft systems.
Terms Typically Offered: Fall.

Anthropology (ANTH)

Courses

ANTH 196 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ANTH 202 Introduction to Anthropology-GTSS3 3 Credits
Human nature and behavior from the broad perspective of contemporary anthropology. Four primary subfields of anthropology, biology, cultural, linguistics, and archaeology discussed to integrate various aspects of the human condition.
Essential Learning Categories: Social and Behavioral Sciences
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring, Summer.

ANTH 220 Principles of Archaeology-GTSS3 3 Credits
Investigation of modern archaeology as an interdisciplinary anthropological science. Explores the objectives, methodologies, and ethics of reconstructing prehistoric life. Examples are drawn from around the world.
Essential Learning Categories: Social and Behavioral Sciences
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

ANTH 222 World Prehistory-GTSS3 3 Credits
Exploration of human cultural evolution as documented through global archaeology. Topics to be discussed include foraging and early agriculture, the rise of complex states, and the origin of civilization in both the eastern and western hemispheres.
Essential Learning Categories: Social and Behavioral Sciences
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall.

ANTH 225 North American Archaeology 3 Credits
Survey of Pre-Columbian North America, highlighting the cultural evolution of indigenous societies in all North American culture areas. The state-level societies of Mesoamerica are also discussed. Development of archaeological theory and its application to the study of prehistoric sites in North America.
Terms Typically Offered: Spring.

ANTH 231 Survey of Biological Anthropology-GTSS3 3 Credits
Exploration of culture through the lens of evolutionary biology. Students will study culture as a changing entity that helps our biological species adapt to multiple physical and social environments. Includes discussion of non-human primates and the application of biological anthropology to forensic science.
Corequisites: ANTH 231L.
Essential Learning Categories: Social and Behavioral Sciences
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall.

ANTH 231L Survey of Biological Anthropology Laboratory-GTSS3 1 Credit
Exploration of culture through the lens of evolutionary biology. Students will study culture as a changing entity that helps our biological species adapt to multiple physical and social environments. Includes discussion of non-human primates and the application of biological anthropology to forensic science. Lab component for ANTH 231.
Corequisites: ANTH 231.
Essential Learning Categories: Social and Behavioral Sciences
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall.

ANTH 240 Cultural Anthropology 3 Credits
Introduction to cultural anthropology and ethnography. Social and political institutions, ritual, gender, culture change, and major theoretical perspectives are explored.
Essential Learning Categories: Social and Behavioral Sciences
Terms Typically Offered: Fall, Spring.

ANTH 270 Death and Forensic Science 2 Credits
Exploration of forensic science, emphasizing medico-legal death investigation. Includes an overview of the sciences in death investigation (pathology, anthropology, entomology, toxicology) and the forensic sciences common in a crime laboratory (pattern evidence, chemistry, biology). Emphasizes professional standards and ethics.
Prerequisites: ENGL 111 and MATH 110.
Corequisites: ANTH 270L.
Terms Typically Offered: Spring.

ANTH 270L Death and Forensic Science Laboratory 1 Credit
Exploration of forensic science, emphasizing medico-legal death investigation. Includes an overview of the sciences in death investigation (pathology, anthropology, entomology, toxicology) and the forensic sciences common in a crime laboratory (pattern evidence, chemistry, biology). Emphasizes professional standards and ethics.
Prerequisites: ENGL 111 and MATH 110.
Corequisites: ANTH 270.
Terms Typically Offered: Spring.
Fees: Yes.

ANTH 296 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ANTH 321 Paleoindian Archaeology 3 Credits
Multidisciplinary analysis of the controversies surrounding the colonization of the western hemisphere and the Pleistocene and early Holocene archaeology of North America.
Prerequisites: ANTH 220 or ANTH 225.
Terms Typically Offered: Fall.

ANTH 326 Colorado Archaeology: A Geographical Perspective 3 Credits
Survey of Colorado prehistory using a geographic perspective, including adjacent portions of the Great Plains, Intermountain West, and Great Basin. The focus is on regional sequences in their environment settings and major research questions from the Paleoindian to Protohistoric and Historic Euroamerican periods.
Prerequisites: ANTH 202 or ANTH 220.
Equivalent Course(s): GEOG 326
Terms Typically Offered: Spring.

ANTH 331 Forensic Anthropology 2 Credits
Introduction to forensic anthropology. Development of skills associated with analyzing skeletal remains, including estimating the sex, age, ancestry, and stature of the unknown individual from the skeleton. This course gives the student an overview of techniques to complete an osteological profile.
Prerequisites: ANTH 270/ANTH 270L or ANTH 231/ANTH 231L or BIOL 209/BIOL 209L.
Corequisites: ANTH 331L.
Terms Typically Offered: Fall.

ANTH 331L Forensic Anthropology Laboratory 1 Credit
Introduction to forensic anthropology. Development of skills associated with analyzing skeletal remains, including estimating the sex, age, ancestry, and stature of the unknown individual from the skeleton. This course gives the student an overview of techniques to complete an osteological profile.
Prerequisites: ANTH 270/ANTH 270L or ANTH 231/ANTH 231L or BIOL 209/BIOL 209L.
Corequisites: ANTH 331.
Terms Typically Offered: Fall.

ANTH 341 Indigenous Cultures of North America 3 Credits
Examination of the diversity of past and present Native American peoples and cultures through ethnography. Presents the outcomes of culture change due to colonialism and modern efforts towards cultural revitalization.
Prerequisites: ANTH 202.
Terms Typically Offered: Fall.

ANTH 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

ANTH 396 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ANTH 420 Field Methods in Archaeology 3 Credits
Overview of contemporary methods of archaeological survey, site recordation, and excavation techniques. Artifact collection, interpretation, and analysis presented as is record keeping, artifact conservation, and curation. Topics include maps and mapping, geographic information systems (GIS), Global Positioning System (GPS), field and specimen photography, and recovery and analysis of supplemental materials (macrobotanical, pollen, chronometric, etc.).
Prerequisites: ANTH 202 or ANTH 220.
Corequisites: ANTH 420L.
Terms Typically Offered: Spring.

ANTH 420L Field Methods in Archaeology Laboratory 2 Credits
Overview of contemporary methods of archaeological survey, site recordation, and excavation techniques. Artifact collection, interpretation, and analysis presented as is record keeping, artifact conservation, and curation. Topics include maps and mapping, geographic information systems (GIS), Global Positioning System (GPS), field and specimen photography, and recovery and analysis of supplemental materials (macrobotanical, pollen, chronometric, etc.). Lab component required for ANTH 420.
Prerequisites: ANTH 202 or ANTH 220.
Corequisites: ANTH 420.
Terms Typically Offered: Spring.
Fees: Yes.

ANTH 421 Cultural Resource Management 3 Credits
Introduction to the principles and practice of public archaeology. Topics include cultural resource legislation, project management, the National Register of Historic Places, and the federal and state offices in charge of managing archaeological heritage.
Prerequisites: ANTH 220 and ANTH 225.
Terms Typically Offered: Spring.

ANTH 422 Southwest Archaeology 3 Credits
Prehistory and cultural background of the southwestern United States. Archaeological sites of Colorado, Utah, Arizona, and New Mexico highlighted. Introduction to cultures inhabiting these areas for the last 5,000 years with emphasis on the Ancestral Puebloans, Hohokam, Mogollon, Fremont, Uto-Aztecan, and Athabaskan groups.
Prerequisites: ANTH 220 or ANTH 225.
Terms Typically Offered: Fall.

ANTH 423 Field Research in Archaeology 6 Credits
Exploration of modern archaeological practice. Over six weeks, students will take part in archaeological field research including excavation, survey, mapping, and occasionally rock art recording. Includes field trips to significant western Colorado sites.
Prerequisites: ANTH 420 and ANTH 420L.
Terms Typically Offered: Summer.

ANTH 424 Archaeological Laboratory Methods 4 Credits
Introduction to techniques of laboratory cataloging, artifact analysis, and technical report writing. Photography, special sample preparation, and other topics will also be discussed.
Prerequisites: ANTH 420 and ANTH 420L.
Terms Typically Offered: Spring.

ANTH 478 Professional Issues in Forensic Science 3 Credits
Exploration of professional issues specific to forensic science practitioners. Topics include problems seen with forensic practitioners and in forensic science facilities, the Organizations of Scientific Area Committees (OSACs), admissibility of forensic evidence, courtroom testimony, and report writing. Job and graduate school applications are discussed. Ethical dilemmas, their resolution, and standards of ethics codified by professional forensic organizations are presented.
Prerequisites: CRMJ 280/CRMJ 280L or ANTH 270/ANTH 270L.
Terms Typically Offered: Spring.

ANTH 495 Independent Study 1-4 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

ANTH 496 Topics 1-4 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ANTH 499 Internship 1-6 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Applied Business (ABUS)

Courses

ABUS 101 Budget Analysis 3 Credits
Introduction to the basic elements and concepts of accounting, with emphasis on payroll, budgets, statements, and terms and accounting language.

ABUS 102 Business Basics 3 Credits
Introduction to small business management. This course covers the basic principles of marketing, management, and finance needed to manage or start a small business. The course assists in the development of a business plan and introduces methods of financing a business launch.
Terms Typically Offered: Fall, Spring.

ABUS 105 Internet Marketing Strategies 3 Credits
Overview of succeeding in business online. Web business models are discussed. Online branding, traffic building, search engine optimization, and online retailing will be examined through examples and case studies. Students will gain exposure to doing business solely online as well as using it as a supplement for business activities.
Terms Typically Offered: Fall, Spring.

ABUS 114 Digital Layout 3 Credits
Introduction to page layout software that delivers creative freedom and productivity to desktop publishing. Class discussions and independent projects supplement hands-on classroom work.
Terms Typically Offered: Spring.

ABUS 116 Principles of Supervision 3 Credits
Introduction to the principles and techniques of supervising and motivating personnel. This course is designed for students who are interested in supervising others or for those currently in supervisory roles. Course content focuses on the human interaction in supervision.
Terms Typically Offered: Spring.

ABUS 120 Digital Design Tools 3 Credits
Exploration of the capabilities of digital cameras, raster photo-editing software, vector drawing software, and digital painting software. The course will cover how these image tools can be applied to create digital images, graphics, and videos.
Terms Typically Offered: Fall.

ABUS 128 Workplace Behavior 3 Credits
Exploration of the importance of effective communication in our personal lives, as well as in the world of business. Practical business applications such as employee motivation, handling customer complaints, and effectively resolving conflict in the workplace will be a major part of the curriculum.
Terms Typically Offered: Fall, Spring.

ABUS 145 Data Management 3 Credits
Exploration of a complete array of database skills, includes table, query, form, and report creation and modification. Other topics include application integration and automation of database tasks within the database.

ABUS 155 Social Media for Business 3 Credits
Exploration of social media as a business strategy and how to match that strategy with the goals of the business. This course addresses current trends, ethics, regulations, legal challenges, strategy, content development, and change management. Students develop a better understanding of the similarities and differences between social media marketing and traditional marketing.
Terms Typically Offered: Fall, Spring, Summer.

ABUS 156 Problem Solving in the Business Environment 3 Credits
Exploration of the problem-solving and decision-making processes. Those processes include: identifying decision elements, recognizing characteristics of good and bad decisions, practicing various approaches to decision making, utilizing a 9-step process for organization decision making, exploring the nature of problems, understanding situation factors, identifying problems, considering the human side of problem solving, and utilizing a 6-step problem solving process.
Terms Typically Offered: Fall, Spring.

ABUS 160 Introduction to Customer Service 3 Credits
Principles of customer service, including learning the relationship of self to customers, problem solving, and understanding the importance of communicating with customers. Specific emphasis is given to managing customer expectations by building customer rapport and creating positive outcomes.
Terms Typically Offered: Fall, Spring, Summer.

ABUS 165 Work Readiness 1 Credit
Exploration and development of current workplace requirements. Skills include job search methods, networking, interview process and techniques, personal and professional development, personal finance, employer expectations, essential skills needed, professional etiquette, ethics, drug usage in the workforce, background checks, and techniques to maintain employment and advance in any career.
Terms Typically Offered: Fall, Spring.

ABUS 196 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ABUS 200 Business Rules and Regulations 3 Credits
Introduction to the contemporary issues, theories, and principles used to effectively manage human resources. Topics include: recruiting, hiring, compensation and benefits, training and development, employee relations, and legal issues.
Terms Typically Offered: Fall.

ABUS 210 MicroBusiness Money Management 3 Credits
Overview of managing money for small businesses. Recording, analyzing, reporting cash functions, managing payroll, budgeting, and planning for the future will be discussed. Programs that assist with money management will be reviewed.
Terms Typically Offered: Fall, Spring.

ABUS 257 Managing Office Technology I 3 Credits
Introduction to basic computer terminology, file management, and PC system components. Provides an overview of office application software, including word processing, spreadsheets, and presentation graphics. Includes the use of a web browser to access the internet.
Terms Typically Offered: Fall, Spring.

ABUS 258 Managing Office Technology II 3 Credits
Introduction to a wide range of uses of the electronic spreadsheet, with special emphasis on using it as a business tool. Includes fundamentals and terms, creating and saving workbooks, entering and using formulas, formatting, printing, multiple-page workbooks, creating charts, entering and using functions, managing lists, and simple macros.
Terms Typically Offered: Spring.

ABUS 299 Internship 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

Archaeology (ARKE)

Courses

ARKE 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

ARKE 396 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ARKE 496 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ARKE 499 Internship 1-12 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Art (ARTE)

Courses

ARTE 101 Two-Dimensional Design-GTAH1 3 Credits
Introduction to the design process using the elements and principles of art, with an emphasis on composition, mark making, color theory, and craftsmanship.
Essential Learning Categories: Fine Arts
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTE 102 Three-Dimensional Design-GTAH1 3 Credits
Introduction to principles of form and function in three-dimensional design, with an emphasis on materials, process, and craftsmanship.
Essential Learning Categories: Fine Arts
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTE 103 Digital Art and Design-GTAH1 3 Credits
Exploration of technical and conceptual processes through hands-on creative projects, with emphasis on digital literacy, visual communication, design thinking, and problem solving for digital artwork.
Essential Learning Categories: Fine Arts
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

ARTE 104 Color Theory and Design 3 Credits
Workshop for artists and designers. It provides a clear, in-depth practical guide to the fascinating world of color theory, the practice of color mixing, and its application in all of the visual art and design disciplines.
Terms Typically Offered: Fall, Spring.

ARTE 115 Art Appreciation-GTAH1 3 Credits
Some of the hows, whys, and whos of painting, sculpture, and functional design in selected periods and places. This course is intended for non-art majors. Art majors should take ARTE 118 instead.
Essential Learning Categories: Fine Arts
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum

ARTE 118 History of Art, Prehistory to Renaissance-GTAH1 3 Credits
Survey of the development of art, from prehistory up to the emergence of the Renaissance. Course focus will be the study of major monuments to gain an understanding of the important factors that defined the artistic production of each civilization and historic period.
Essential Learning Categories: Fine Arts
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring, Summer.

ARTE 119 History of Art, Renaissance to Present-GTAH1 3 Credits
Survey of the development of art, from the Renaissance to the late 20th century. Course focus will be the study of major monuments to gain an understanding of the important factors that defined the artistic production of different historic periods.
Essential Learning Categories: Fine Arts
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring, Summer.

ARTE 196 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ARTE 294 Sophomore Seminar 3 Credits
Development of intended personal direction for creative and scholarly work. Honing creative critical thinking skills through formal analysis of artwork, art critiques, basic art theory and contemporary art concepts, developing the annual juried student art exhibition, fundamentals of matting, framing, basing, and portfolio development, woodshop safety, exposure to local and regional art scene, and exploring careers in art.
Terms Typically Offered: Spring.

ARTE 296 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ARTE 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

ARTE 396 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ARTE 470 Studio Assistant and Teaching Aide 3 Credits
Teaching experience via preparing demonstrations and performing in-studio maintenance of studio equipment. Taught in conjunction with 200-level classes. Designed for the senior level artist.
Prerequisites: Instructor Permission.
Terms Typically Offered: Fall, Spring.
Course may be taken 3 times for credit.

ARTE 485 Senior Exhibition 1 Credit
Preparation for BFA Exhibition. Introduction to gallery installation methods and professional public presentation, which includes practical experience in the CMU 437CO Art Gallery.
Prerequisites: ARTE 494.
Terms Typically Offered: Spring.

ARTE 494 Studio Art Senior Seminar 3 Credits
Examination of the current state of the studio arts and various career options through research, discussion, and practical application with coordinating required art competitions. Includes development and presentation of a professional portfolio package, including: cover letter, artist statement, resume, and web presence.
Prerequisites: ARTE 294 with grade of "B" or higher.
Terms Typically Offered: Fall.

ARTE 495 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

ARTE 496 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ARTE 498 Studio Assistant and Teaching Aid 3 Credits
Teaching experience via preparing demonstrations and performing in-studio maintenance of studio equipment. Taught in conjunction with 200-level classes. Designed for the senior level artist.
Prerequisites: Permission of instructor.
Terms Typically Offered: Fall, Spring.
Course may be taken 3 times for credit.

ARTE 499 Internship 3 Credits
Placement in a gallery, art center, or museum setting. The student is expected to complete 135 clock hours.
Prerequisites: Permission of instructor.

ARTE 596 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Art - Animation (ARTA)

Courses

ARTA 123 Lights! Camera! Action! 3 Credits
Exploration of fundamental components of digital design and time-based media, such as photography, animation, digital filmmaking, and motion design. Students focus on the elements of light, sound, and motion as key time-based design factors.
Terms Typically Offered: Fall.
Fees: Yes.

ARTA 222 Principles of Digital Photography 3 Credits
Exploration of photographic principles through the use of the digital single lens reflex camera.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTA 223 Image and Motion 3 Credits
Introduction to tools, techniques, and practices relating to images and time-based media. Integration of images, typography, digital film, and sound.
Terms Typically Offered: Fall, Spring.

ARTA 224 Principles of Film 3 Credits
Introduction to various stages of film production. Emphasis on screenwriting, planning and scheduling, cameras, lenses, lighting, and editing.
Terms Typically Offered: Spring.
Fees: Yes.

ARTA 225 Principles of Animation 3 Credits
Introduction to the core principles of animation through animated exercises that explore various techniques and tools for creating the illusion of life.
Prerequisites: ARTA 123.
Terms Typically Offered: Spring.
Fees: Yes.

ARTA 250 Films for Filmmakers 3 Credits
Survey of notable films and ideas, themes, and techniques that guide and influence filmmakers. Discussions on how to draw inspiration when producing films.
Prerequisites: ARTA 224.
Terms Typically Offered: Spring.

ARTA 296 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ARTA 320 Stop Motion Animation 3 Credits
Introduction to stop motion animation techniques, including: claymation, puppet, paint, cut out, and pixilation. Involves the principles of animation, character design, armature building, puppet and prop fabrication, set creation, and lighting.
Prerequisites: ARTA 123; and ARTA 222 or ARTS 225.
Terms Typically Offered: Fall.

ARTA 322 Intermediate Photography 3 Credits
Discovery of vision and the art of seeing through the lens of a camera.
Prerequisites: ARTE 101 and ARTA 222.
Terms Typically Offered: Fall.
Fees: Yes.

ARTA 323 Character Design and Story Concepts 3 Credits
In-depth exploration of the power of story and how it influences the design process. World building through character design and concept art for animation, live-action, comics, and video games.
Prerequisites: ARTA 225.
Terms Typically Offered: Spring.

ARTA 324 Animation Production 3 Credits
Development of a personal aesthetic through advanced individual or collaborative short animations and character performances, based on original concepts and stories. Involves storyboarding, pre-production, and post-production.
Prerequisites: ARTE 101, ARTA 224, and ARTA 225.
Terms Typically Offered: Fall.
Fees: Yes.

ARTA 325 3D Digital Modeling 3 Credits
Exploration of the basics of 3D animation. Focus on modeling, texturing, lighting, cameras, animation, and rendering. Emphasis will also be on creative expression in these areas.
Prerequisites: ARTA 223, ARTA 224, and ARTA 225.
Fees: Yes.

ARTA 326 Intermediate Filmmaking 3 Credits
Continuation of ARTA 224. Exploration of intermediate filmmaking techniques and aesthetics.
Prerequisites: ARTA 222, ARTA 224, and ARTA 225.
Terms Typically Offered: Fall.
Fees: Yes.

ARTA 327 Sound Design and Post-Production 3 Credits
Exploration of the relationship between sound and image through post-production techniques, including editing, coloring, and sound design. Creation of Foley sound effects for short films, podcasts, and video games.
Prerequisites: ARTA 324 and ARTA 326.
Terms Typically Offered: Spring.
Fees: Yes.

ARTA 328 Experimental Video and Animation 1 Credit
Visual experimentation with abstract forms, non-narrative techniques, and emerging digital media that challenge conventional storytelling. Can include mixed media, 3D animation, AI art, and live video manipulation.
Prerequisites: ARTA 224 and ARTA 225.
Terms Typically Offered: Fall.

ARTA 396 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ARTA 421 Advanced Filmmaking I 3 Credits
Advanced studies in digital filmmaking focusing on each student's individual creative interests, such as experimental filmmaking or the combination of film with additional media.
Prerequisites: ARTA 326.
Terms Typically Offered: Spring.
Fees: Yes.

ARTA 422 Advanced Photography and Studio Lighting 3 Credits
Exploration of light and the development of a studio lighting portfolio.
Prerequisites: ARTE 101 and ARTA 222.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTA 423 Advanced Filmmaking II 3 Credits
Further investigation and development of techniques and practices in digital filmmaking. End of semester film is publicly screened.
Prerequisites: ARTA 421.
Terms Typically Offered: Spring.

ARTA 424 Animation, Film, and Photography Studio I 3 Credits
Creation of pre-production and concept development for an individual or collaborative senior thesis. Students are encouraged to focus on their personal interests, career goals, and portfolio needs.
Prerequisites: ARTA 222 or ARTS 225; and ARTA 324 or ARTA 326.
Terms Typically Offered: Fall.
Fees: Yes.

ARTA 425 Animation, Film, and Photography Studio II 3 Credits
Continuation of ARTA 424. Production of individual or collaborative thesis. Emphasis is placed on industry criteria for professional presentation in portfolios, festivals, and public exhibitions.
Prerequisites: ARTA 424.
Terms Typically Offered: Spring.
Fees: Yes.

ARTA 426 Advanced Motion Studio 3 Credits
Development of emerging personal direction in film and animation. Opportunities for unique, experimental, and personal projects, working individually or in collaboration with other students.
Prerequisites: Upper division standing.
Terms Typically Offered: Fall.
Course may be taken 2 times for credit.
Fees: Yes.

ARTA 427 Portfolio and Demo Reel 3 Credits
Preparation of demo reel, resume, and promotional materials for entry into the professional job market.
Prerequisites: ARTA 424.
Terms Typically Offered: Spring.
Fees: Yes.

ARTA 428 Concept and Environment Art 3 Credits
Exploration of concept art and environment art. World building through concept development integrating environment, character, and prop design. Applicable for character design and concept art for animation, live-action, comics, and video games.
Prerequisites: ARTA 323.
Terms Typically Offered: Fall.

ARTA 429 Screenplay Adaptation 3 Credits
Art of adaptation, from script to screen. Adapt pre-existing stories and concepts into screenplays for film, TV, graphic novels, or games.
Prerequisites: ARTA 123, ARTA 224, and ARTA 225.
Terms Typically Offered: Fall.

ARTA 430 Creature Design 3 Credits
Fundamentals of creature design, with a focus on form, function, and believability for film, animation, comics, and games.
Prerequisites: ARTE 101, ARTS 151, ARTA 123, and ARTA 323.
Terms Typically Offered: Fall.

ARTA 435 Advanced Cinematography 3 Credits
Study of cinematography, encompassing both technical understanding and artistic skill in creating memorable and meaningful images. Students will begin to develop their own visual storytelling style.
Prerequisites: ARTA 224.
Terms Typically Offered: Fall.
Fees: Yes.

ARTA 496 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ARTA 499 Internship 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Art - Art Education (ARTD)

Courses

ARTD 196 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ARTD 296 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ARTD 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

ARTD 396 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ARTD 410 Elementary Art Education Methods 3 Credits
Explorations of theory, methods, and materials for teaching art, kindergarten through sixth grade. Required for K-6 elementary teachers and K-12 Art Education majors. Studio applications, aesthetics, creative problem solving, art history, lesson, and unit plans explored.
Prerequisites: EDUC 115, EDUC 215, and EDUC 343, all with a grade of "B" or higher.
Terms Typically Offered: Fall, Spring.

ARTD 410L Field/Studio Experience in Elementary Art Education Methods 1 Credit
Required for K-12 art education majors only. Forty field hours in local public schools.
Prerequisites: EDUC 115, EDUC 215, EDUC 343, all with a grade of "B" or higher.
Corequisites: ARTD 410.

ARTD 412 Secondary Art Education Methods 4 Credits
Seminar that covers theory, methods, and materials for teaching art in middle and high schools, grades 7-12. Applies options in teaching through embedded field hours. Development of a year-long art curriculum. Required for K-12 Art Education majors.
Prerequisites: EDUC 115, EDUC 215, EDUC 343, all with a grade of "B" or higher.

ARTD 495 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

ARTD 496 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ARTD 596 Topics: 0.5-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Art - Art History (ARTH)

Courses

ARTH 196 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ARTH 220 History of Modern Art 3 Credits
General survey of Western and non-Western art, from 1850 to the 21st century, with an emphasis on modern and contemporary art. This is a survey on the major movements and civilizations, methods of analysis, and historical and cultural context.
Terms Typically Offered: Spring.

ARTH 296 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ARTH 315 Nineteenth-Century Art 3 Credits
Comprehensive survey of the major art movements of the nineteenth century: Neoclassicism, Romanticism, Academic Art, the invention of photography, Realism, Impressionism, Post-Impressionism, Symbolism, and Art Nouveau.
Terms Typically Offered: Fall.

ARTH 316 20th Century Art to 1950 3 Credits
Foundations of modernism from Post-Impressionism through Surrealism through the study of major artists and art works and related manifestations including important theories of modern art, the modernist transformation of design aesthetics, and social and political reactions to modern art.
Prerequisites: ARTE 118 and ARTE 119.

ARTH 317 American Art History 3 Credits
Examination of art and artists of America from colonial times up to the present with attention to the role of the artist and the visual arts in American social experiment.
Prerequisites: ARTE 118 and ARTE 119.

ARTH 318 Development of Contemporary Art 3 Credits
Examination of art produced within the past 40 years. Covers the plurality of successful styles/subjects pursued by artists, the role of art critics and museums in interpreting trends, the impact of commercial art markets on the production and dissemination of contemporary art, and various experimental art forms to counteract the influence of critics, institutions, and commercial interests.
Terms Typically Offered: Fall.

ARTH 319 Art of the American West 3 Credits
Examination of the artist's encounter with the West as both real and imagined experience from the works of expeditionary artists of the early 19th century to recent large scale "earthworks" that transform the Western landscape. Emphasis on the works of the major 19th century protagonists of the heroic Western image as well as the important role of Santa Fe and other Western locations in the development of a Western art tradition.
Prerequisites: ARTE 118 and ARTE 119.

ARTH 321 Gothic and Northern Renaissance Art and Architecture 3 Credits
Architectural accomplishments of Gothic style and the revival and development of painting and sculpture, from the Gothic period through the Renaissance in the North. Includes invention of oil painting, growth of realism, direct observation of the real world in art, and effects of the Protestant Reformation on artistic styles and content.
Terms Typically Offered: Spring.

ARTH 322 Expressionism in 20th Century Art 3 Credits
Expressionism in Germany during the early 20th century and its recurrence in the latter half of the 20th century. Visual language of expressionism as a distinctive style and the artistic goals of Expressionism that define a specific role for the artist in society.
Prerequisites: ARTE 118, ARTE 119, and ARTH 316.

ARTH 323 History of Modern Architecture 3 Credits
Modern architecture as a form of applied artistic expression. Examination of major stylistic developments in architecture and applied design from 19th century historically-inspired styles through 20th century innovations that transformed traditions of architectural design and the role of the architect in modern society.
Prerequisites: ARTE 118 and ARTE 119; and ARTH 315 or ARTH 316.

ARTH 324 History of Graphic Design 3 Credits
Exploration of the history of graphic design from the advent of writing through the digital revolution, focusing on development of design techniques and styles.
Prerequisites: ARTE 118 and ARTE 119.

ARTH 325 Italian Renaissance Art History 3 Credits
Explores origins, development, and end of Italian Renaissance. Late thirteenth to mid-sixteenth century. Emphasis on major works of sculpture, painting, architecture, and the artists responsible for their creation.
Prerequisites: ARTE 118 and ARTE 119.

ARTH 326 Medieval Art: Early Christian to the Romanesque 3 Credits
Explorations of Christian art through time and geographic regions. Emphasizes major works including sculpture, manuscripts, and architecture as well as the forces which shaped their creation and determined their meaning and significance.
Prerequisites: ARTE 118 and ARTE 119.

ARTH 327 History of Western Architecture 3 Credits
Explores beginnings of architecture in prehistory and traces development through time and geographic regions through the end of the Italian Renaissance. Emphasizes major works of architecture with discussions of form, function, and relation to other works of architecture.
Prerequisites: ARTE 118 and ARTE 119.

ARTH 331 History of the Moving Image 3 Credits
Exploration of the history of the moving image from the pre-industrial era through the contemporary and digital era, focusing on the history of both technological and artistic development, and the moving image in its varied types.
Prerequisites: ARTE 118 and ARTE 119.
Terms Typically Offered: Fall.

ARTH 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

ARTH 396 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ARTH 400 Art Theory 3 Credits
Introduction to the development of art history as a discipline and how art historians evaluate and interpret complex issues of style, form, content, and theory in visual art. Structured discussion of historical art works studied in other upper division art history courses. Readings of seminal art historical theories and interpretive methodologies. Hands-on practice with library research tools.
Prerequisites: Any 300-level ARTH course.
Terms Typically Offered: Spring.

ARTH 495 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

ARTH 496 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ARTH 499 Internship 1-12 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Art - Graphic Design (ARTG)

Courses

ARTG 112 Graphic Design I 3 Credits
Introduction to the basic use and operation of graphic design hardware and software, specifically on Macintosh systems. Students will identify essential terminology, peripheral devices, and system management, while developing and organizing operational files, managing project information, capturing and integrating digital assets, and maintaining system efficiency.
Terms Typically Offered: Fall, Spring.

ARTG 120 UX Design I 3 Credits
Introduction to techniques and best practices in User Experience for screens using contemporary software.
Terms Typically Offered: Spring.

ARTG 196 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ARTG 210 Introduction to Letterpress 3 Credits
Theoretical and practical letterpress course offering materials introduction and technique development for technical use.
Terms Typically Offered: Spring.

ARTG 221 Graphic Design II 3 Credits
Principles of design and layout techniques, including thumbnail, rough, comprehensive layouts, and mock-ups. Focus on work planning and preparation of artwork using both computer-generated and hand-generated images.
Prerequisites: ARTG 112.
Terms Typically Offered: Fall.
Fees: Yes.

ARTG 222 Illustration Principles 3 Credits
Approaches to traditional and contemporary illustration techniques, with a focus on developing practical skills using a variety of materials and methods.
Prerequisites: ARTG 112.
Terms Typically Offered: Fall.
Fees: Yes.

ARTG 223 Commercial Typography and Sign Painting 3 Credits
Cultivation of skills necessary to create professional level industrial advertisement, including pounce patterns, wood working, hand lettering techniques, and gilding.
Prerequisites: ARTG 222.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTG 226 Motion Graphics 3 Credits
Exploration of motion graphics as time-based graphic design. Covers the history and application of motion graphics in animation, film, typography, and interactive environments. Focus on current trends in design, media, and emerging technologies.
Prerequisites: ARTG 222.
Terms Typically Offered: Spring.
Fees: Yes.

ARTG 234 Street Art and Mural Design 3 Credits
Intermediate public art class blending traditional and contemporary techniques, focusing on hands-on creation from concept to execution.
Prerequisites: ARTG 221.
Terms Typically Offered: Spring, Summer.
Course may be taken 3 times for credit.

ARTG 290 UX Design II 3 Credits
Development of websites, with focus on the end user by applying tested UX design.
Prerequisites: ARTG 120.
Terms Typically Offered: Spring.
Fees: Yes.

ARTG 292 Letterforms and Typography 3 Credits
Study of letterforms and typography, including terminology, type classification and identification, type design, and the use of type in design compositions. Emphasis on copyfitting, layout, and the fundamental principles of pattern and spatial design.
Prerequisites: ARTG 221.
Terms Typically Offered: Spring.

ARTG 296 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ARTG 301 Digital Illustration 3 Credits
Advanced creation of digital imagery, focusing on visual content and composition in print and multi-media applications.
Prerequisites: ARTG 222.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTG 305 UX Design III 3 Credits
Investigation, analysis, and application of User Experience, and emerging web and application design techniques.
Prerequisites: ARTG 290.
Terms Typically Offered: Fall.

ARTG 321 Advanced Typography 3 Credits
Exploration of traditional and contemporary forms of typography and compositions through letterpress, hand-rendering approaches, catalog layout, and large-format type. Emphasis on developing advanced typographic compositions that blend historical and modern techniques for both small- and large-scale projects.
Prerequisites: ARTG 292.
Terms Typically Offered: Fall.
Fees: Yes.

ARTG 327 Advanced Motion Graphics 3 Credits
Advanced motion graphics techniques, focusing on audio, animation, typography, and visual effects. Emphasis on movement, editing, timing, rhythm, story arc, and design elements like light and color.
Prerequisites: ARTG 226.
Terms Typically Offered: Fall.

ARTG 333 Illustration Methods 3 Credits
Illustration techniques in context of contemporary materials and methods. Advanced use of materials.
Prerequisites: ARTG 222.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTG 334 Package Design 3 Credits
Comprehensive exploration of packaging in product branding and marketing, covering the entire design process, from conceptualization to production.
Prerequisites: ARTG 321 and ARTH 324.
Terms Typically Offered: Spring.

ARTG 337 Illustration Exploration 3 Credits
Exploration of storytelling through traditional and contemporary illustration media. Emphasis on developing original concepts, refining execution techniques, and applying professional practices for both print and digital illustrations.
Prerequisites: ARTG 222.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTG 350 Identity Design 3 Credits
Exploration of visual communication for public and private business and organizational identity. Emphasis on the design process and strategies for creating image-based identity systems, including the development of consistent branding standards.
Prerequisites: ARTG 321 and ARTH 324.
Terms Typically Offered: Spring.

ARTG 360 Sketchbook 3 Credits
Sketchbooks as a primary tool for fostering creativity and documenting the artist's thought processes. This course includes exploratory exercises and field assignments to develop skills in maintaining a personal sketchbook as a space for recording ideas and capturing the artist's visual experiences.
Prerequisites: ARTG 226.
Terms Typically Offered: Fall.
Course may be taken 3 times for credit.
Fees: Yes.

ARTG 373 Screen Printing for Graphic Design 3 Credits
Introduction to concepts and techniques of screen printing within graphic design and illustration. Become familiar with industry tools, equipment, and processes.
Prerequisites: ARTG 360.
Terms Typically Offered: Fall.
Course may be taken 3 times for credit.
Fees: Yes.

ARTG 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

ARTG 396 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ARTG 401 Digital Painting 3 Credits
Introduction to the fundamentals of digital painting, focusing on proportion, perspective, and color theory. Emphasis on translating light and color into a digital space, with an exploration of digital tools and techniques. Students will develop perceptual problem-solving skills through the practical application of digital painting methods.
Prerequisites: ARTG 222.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTG 406 UX Design IV 3 Credits
Self-directed projects in User Experience design, which will explore advanced methods and techniques.
Prerequisites: ARTG 305.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTG 421 Contemporary Letterpress 3 Credits
Approaches to traditional and contemporary letterpress. Materials will be introduced and technique developed for practical use.
Prerequisites: ARTG 221.
Terms Typically Offered: Fall, Spring.
Course may be taken 3 times for credit.
Fees: Yes.

ARTG 427 Lab Assistant 1-3 Credits
Practice with technologies used within the graphic design labs. Maintain and use equipment.
Prerequisites: ARTG 221.
Terms Typically Offered: Fall, Spring.
Course may be taken 3 times for credit.

ARTG 437 Illustration Synthesis 3 Credits
Advanced illustration development focusing on concept, content, materials, and techniques. Emphasis on individual artistic style and personal visual communication perception.
Prerequisites: ARTG 222.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTG 438 Brand Design 3 Credits
Exploration of the branding process common to the promotion of products and services, including conducting research, clarifying strategy, creating touchpoints, and advertisements. Emphasis will be placed on design processes, production of advertisements, and the management of assets.
Prerequisites: ARTG 334 and ARTG 350.
Terms Typically Offered: Fall.
Course may be taken 3 times for credit.

ARTG 493 Portfolio Development 3 Credits
Development of professional portfolio materials for securing employment in the design industry. Emphasis on current industry practices, including portfolio presentation formats, resume building, contract negotiations, and salary discussions. The course prepares students to showcase their work effectively and navigate the job market with confidence.
Prerequisites: ARTG 350.
Terms Typically Offered: Spring.
Course may be taken 3 times for credit.
Fees: Yes.

ARTG 495 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

ARTG 496 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ARTG 499 Internship 1-3 Credits
Placement in an agency or corporate department to provide an enhanced transition from the classroom to the work setting through first-hand experience. The student is expected to complete 135 clock hours.
Prerequisites: ARTG 350.
Terms Typically Offered: Fall, Spring.

Art - Sculpture/Studio (ARTT)

Courses

ARTT 270 Sculpture I 3 Credits
Introduction of technique and processes practiced in advanced sculpture courses. Basic welding, mold making, bronze casting and fabrication/construction using multimedia explored. Development of aesthetic concepts stressed and their successful applications. Projects conclude with group critiques.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTT 371 Sculpture/Construction I 3 Credits
Exploration of MIG welding, beginning metal fabrication techniques, woodworking, and multimedia. Historical contexts. Aesthetic concepts stressed, and projects conclude with group critiques.
Prerequisites: ARTT 270.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTT 372 Sculpture/Construction II 3 Credits
Introduction of advanced fabrication techniques and tools in steel, wood, and multimedia. Advanced finishes and finishing techniques also introduced. Continued focus on historical contexts.
Prerequisites: ARTT 371.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTT 380 Bronze/Casting I 3 Credits
Bronze casting using the lost wax process and ceramic shell. Includes history, terminology, equipment, and procedure. Includes working in wax, sprueing the art, ceramic shell investment, technical-pouring procedures, and devesting the shelled patina. Studio emphasis on technique and creative process ending in finished bronze sculpture.
Prerequisites: ARTT 270.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTT 381 Bronze/Casting II 3 Credits
Creation in wax using various techniques. Explorations in wax using representational and abstract forms. Advanced finishes and patinas introduced.
Prerequisites: ARTT 380.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTT 471 Sculpture/Construction III 3 Credits
Sculpture in steel, wood and multimedia. Introduction to forge work. Direction chosen based on interests in materials and processes taught in previous sculpture/construction courses. Independent work via professor contract.
Prerequisites: ARTT 371.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTT 472 Sculpture/Construction IV 3 Credits
Exploration of thematic concepts for development of a BFA exhibit. Independent work via professor contract.
Prerequisites: ARTT 471.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTT 475 Sculpture Workshop I 3 Credits
Continued focus on a student's individual BFA direction. Independent work via student/professor contract.
Prerequisites: ARTT 472.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTT 476 Sculpture Workshop II 3 Credits
Completion of sculpture representative of BFA direction. Sculpture focused and finished for professional presentation. Independent work via student/professor contract.
Prerequisites: ARTT 475.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTT 480 Bronze/Casting III 3 Credits
Creation in wax using various techniques, including advanced mold making. Focus on history and dynamics of furnace building and foundry equipment manufacture.
Prerequisites: ARTT 381.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTT 481 Bronze/Casting IV 3 Credits
Exploration of thematic concepts specific to metal casting techniques for development of a BFA exhibit. Independent work via professor contract.
Prerequisites: ARTT 480.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTT 483 Bronze Workshop I 3 Credits
Continued focus on a student's individual BFA direction. Independent work via student/professor contract.
Prerequisites: ARTT 481.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTT 484 Bronze Workshop II 1-3 Credits
Completion of sculpture representative of the student's BFA direction. Sculpture will be focused and finished for professional presentation specific to metal casting techniques. Independent work via student/professor contract.
Prerequisites: ARTT 483.
Terms Typically Offered: Fall, Spring.
Course may be taken multiple times up to maximum of 3 credit hours.
Fees: Yes.

ARTT 496 Topics: 1-3 Credits
Specialized course to pilot a new topic, explore timely subject matters, or delve deeper into content specific to faculty expertise.
Terms Typically Offered: Fall, Spring.
Course may be taken multiple times up to maximum of 15 credit hours.

Art - Studio Art (ARTS)

Courses

ARTS 151 Foundation Drawing I 3 Credits
Introduction to drawing, with an emphasis on perceptual drawing. Perspective, light, shadow, form, volume, and mark-making strategies are explored, as well as an introduction to composition using a variety of media. Preparation for more advanced art classes.
Terms Typically Offered: Fall, Spring.

ARTS 152 Foundation Drawing II: Figure Drawing 3 Credits
Continuation of ARTS 151. Further development of drawing techniques and an introduction to drawing the human figure. Issues of form, structure, volume, movement, composition, and expressive possibilities are explored and practiced.
Prerequisites: ARTS 151.
Terms Typically Offered: Fall, Spring.

ARTS 196 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ARTS 225 Introduction to Photography 3 Credits
Exploration of digital photography through technical and creative skill development using the digital single lens reflex camera.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTS 231 Fibers Workshop I 3 Credits
Introduction to fiber and fabric art forms, including creation of original weaving, felt and fabric collage, batik and other applications.
Prerequisites: ARTE 101 and ARTS 151.

ARTS 241 Beginning Hand Building 3 Credits
Introduction to the ceramic process using traditional materials and methods for hand formed ceramics objects. Involvement in clay from raw material through the glazing and firing process. Studio emphasis on technique and creative process.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTS 242 Beginning Wheel Throwing 3 Credits
Beginning throwing processes. Creating vessels while learning the technique of shaping clay by throwing. Form and function explored. Initial firing process for bisque fire. Development of under-glaze and glaze techniques.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTS 252 Mixed Media Drawing 3 Credits
Artistic exploration of experimental media (dry and wet) and alternative media (alone or combined) on varied drawing surfaces to give dimension, texture, and vitality to a drawing. Figure and still life are main subject matters for observational approach.
Prerequisites: ARTS 152.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTS 274 Printmaking: Intaglio and Relief 3 Credits
Introduction to concepts and techniques of intaglio and relief printmaking processes. Includes non-acid and acid intaglio techniques, such as drypoint, hard ground/line etch, soft ground, aquatint, multiple plate printing, a la poupee wiping, and chine-colle. Relief processes include linoleum cut and woodcut.
Terms Typically Offered: Fall.
Fees: Yes.

ARTS 275 Printmaking: Screen Printing and Lithography 3 Credits
Introduction to the techniques, concepts, and history of screen print and lithography printmaking processes. Screen printing techniques include: experimental monoprint, multiple color registration, and photo emulsion. Lithography techniques include: black and white and multiple color printing from stone and photo plates. Emphasis will be placed on technical development, concept and idea generation, craftsmanship, and studio participation.
Terms Typically Offered: Spring.
Fees: Yes.

ARTS 291 Painting I: Introduction to Painting 3 Credits
Introduction to the language of painting through studio practice. Fundamental skills of color mixing and practical applications of painting and how they relate to perceptual problem solving. Focus on light and color and how it translates into pictorial space through observational painting.
Prerequisites: ARTS 151.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTS 296 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ARTS 325 Intermediate Photography 3 Credits
Development and discovery of individual artistic vision through the use of film photography.
Prerequisites: ARTE 101; and ARTS 225 or ARTA 222.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTS 331 Fibers Workshop II 3 Credits
Intermediate examination of several fiber or fabric applications.
Prerequisites: ARTS 231.

ARTS 335 Digital Alternative Processes 3 Credits
Exploration of fine art print making using digital photographic processes. Contains a hands-on element through continuation of digital photography studies.
Prerequisites: ARTS 325.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTS 336 Photography Workshop I 3 Credits
Advanced development of personal vision and style through the lens of a camera.
Prerequisites: ARTS 335.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTS 342 Throwing Workshop I 3 Credits
Continuation of the throwing process involving more complex vessels and techniques using lids, spouts, and pedestals. Assignment to firing teams for studio production for high fire clay.
Prerequisites: ARTS 242.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTS 344 Throwing Workshop II 3 Credits
Alteration of thrown vessels using several techniques, including: wet shaping, leatherhard shaping, marks, incising, and stamping. Creating larger vessels using a two-piece technique. Kiln teams assigned for high firings. Develop and study glazes and empirical formulas. Introduction to basic molecular composition of raw materials.
Prerequisites: ARTS 342.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTS 351 Drawing Workshop I 3 Credits
Traditional and contemporary drawing processes and advanced compositional strategies. Perceptual, abstract, and conceptual ideas explored within the context of strengthening the artist's formal skills and idea development. Individual and group critiques ongoing.
Prerequisites: ARTS 152.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTS 352 Drawing Workshop II 3 Credits
Formal mastery of the visual language and development of a personal artistic direction. Critical thinking skills about individual artistic influences explored. Individual and group critiques ongoing.
Prerequisites: ARTS 351.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTS 353 Visual and Conceptual Thinking I 3 Credits
Meaningful questioning and engagement in creative problem solving. Assumptions about art questioned. Media selection is not limited: problems posed may be solved with 2D or 3D media.
Prerequisites: ARTS 152.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTS 354 Intermediate Life Drawing 3 Credits
Continuation of the study of the human figure through an exploration and practice of composition, form, structure, volume, movement, anatomy, and drawing processes.
Prerequisites: ARTS 152.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.
Fees: Yes.

ARTS 362A Artists' Books 1 Credit
Introduction to the art of making visual books, including book structure, binding techniques, and strategies for developing sequential imagery.
Prerequisites: ARTE 101 and ARTS 152, or permission of instructor.

ARTS 362B Artists' Books 1 Credit
Continuation of the art of making visual books, including book structure, binding techniques, and strategies for developing sequential imagery.
Prerequisites: ARTE 101 and ARTS 152, or permission of instructor.

ARTS 362C Artists' Books 1 Credit
Further exploration of the art of making visual books, including book structure, binding techniques, and strategies for developing sequential imagery.
Prerequisites: ARTE 101 and ARTS 152, or permission of instructor.

ARTS 364 Figure Painting I 3 Credits
Exploration of proportion, perspective, and volume through painting from a model. Investigation of various techniques and conceptual development encouraged through use of oil or acrylic.
Prerequisites: ARTS 152 and ARTS 291.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTS 365 Painting II: Methods and Materials 3 Credits
Exploration and experimentation with various techniques, materials, and alternative processes inherent to contemporary painting. Through this exploration of painting, students will begin to develop a direction of investigation and a conceptual framework for their own personal painting practice.
Prerequisites: ARTS 151.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTS 366 Painting 2: Observational Painting 3 Credits
Further exploration of observational painting through various techniques, materials, and processes inherent to contemporary observational painting. This course builds on the foundation of observational painting in ARTS 291 allowing students to further develop their observational painting skills.
Prerequisites: ARTS 291.

ARTS 370 Printmaking: Intermediate Lithography 3 Credits
Introduction to intermediate concepts and techniques of fine art lithography, including: traditional aluminum plate lithography, multiple color, hybrid or combination prints, and chine-colle techniques. Development of creative skills, conceptual direction, craftsmanship, and studio involvement.
Prerequisites: ARTS 275.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTS 371 Printmaking Workshop I 3 Credits
Development of skills with intaglio, relief, screen printing, and lithograph. Exploration of intermediate and advanced techniques based on individual student research direction.
Prerequisites: ARTS 274 or ARTS 275.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTS 372 Printmaking Workshop II 3 Credits
Exploration of printmaking media. Development of personal concepts and content across media within the context of art history. Artwork created will be matted or framed and documented digitally.
Prerequisites: ARTS 371.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTS 375 Printmaking: Advanced Screen Printing 3 Credits
Continued development and refinement of the techniques and concepts of fine art screen printing, including: in-depth exploration of color, size, scale, and complexity of multiple layer imagery. Emphasis will be put on the development of creative thinking, developing personal artistic concepts, and portfolio development.
Prerequisites: ARTS 275.
Terms Typically Offered: Spring.
Fees: Yes.

ARTS 376 Printmaking: Advanced Intaglio and Relief 3 Credits
Exploration of advanced intaglio and relief techniques, history, and concepts. These will include: monoprinting, mezzotint, and various digital technologies and techniques such as CNC (computer navigated control) routing and kento registration techniques. Research projects into other printmaking techniques will be done on individual basis. Emphasis will be on demonstration of technical development, conceptual growth, craftsmanship, and studio participation.
Prerequisites: ARTS 274.
Terms Typically Offered: Fall.
Fees: Yes.

ARTS 384 Ceramic Sculpture Workshop I 3 Credits
Creations in clay using various techniques and processes. Explorations with clay include: elements of the figure, representational and abstract, as well as 3D forms as pure sculpture. Artwork based and finished for professional exhibition. Independent work via student/professor contract.
Prerequisites: ARTS 241.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTS 385 Summer Institute in Marble, Colorado 3 Credits
Summer symposium at Marble/Marble Carving Symposium. Carve Colorado Yule Marble from the same quarries used in the Lincoln Memorial, the Tomb of the Unknown Soldier and other projects. A fee for the summer institute is in addition to Colorado Mesa University tuition and fees.
Prerequisites: ARTT 270.

ARTS 387 Bronze Commissions: Workshop I 3 Credits
Special bronze commissions and projects as a liaison project with schools or the community. Direct experience at creating art from inception to mounted sculpture. Presentations to respective clients, budgets, armatures, sculpting, molds, wax, investing, and finishing of the bronze. Basing of the sculptures complete the process.
Prerequisites: ARTT 270.

ARTS 388 Ceramic Sculpture Workshop II 3 Credits
Thematic concepts for the development of a BFA exhibition in clay. Consultation between student and mentor will be of utmost importance as the theme is developed. Independent work via student/professor contract. Art work based for professional presentation. Development of glazes including empirical formulas. Introduction to basic chemistry of the molecular composition of raw materials.
Prerequisites: ARTS 384.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTS 391 Painting Workshop I 3 Credits
Development of skills in painting media of choice. Exploring advanced techniques to develop individual artistic expression. Discussions of personal influences and historical context ongoing.
Prerequisites: ARTS 291 or ARTS 365.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTS 392 Painting Workshop II 3 Credits
Further investigation of various painting techniques, tools, media, and materials dependent on individual artistic direction. Personal artistic influences identified to aid individual artistic direction. Individual and group critiques are ongoing.
Prerequisites: ARTS 391.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTS 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

ARTS 396 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ARTS 425 Advanced Studio Photography 3 Credits
Further exploration of light and individual artistic vision through the use of digital photography.
Prerequisites: ARTS 325.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTS 431 Fibers Workshop III 3 Credits
Creating of advanced fiber and fabric artwork; examination of historical precedents.
Prerequisites: ARTS 331.
Fees: Yes.

ARTS 435 Wet Alternative Processes 3 Credits
Exploration of fine art print making using wet alternative photographic processes. Contains a hands on element.
Prerequisites: ARTS 335.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTS 436 Photography Workshop II 3 Credits
Advanced development of personal vision and style through the lens of a camera and creation of prints.
Prerequisites: ARTS 336.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTS 442 Kiln Construction 3 Credits
Ceramics majors. Theory and practice of formulation of glazes utilizing minerals and oxides. Development of glazes includes empirical formula to a batch, batch to an empirical formula, and limit formulas. Basic chemistry of the molecular composition of raw materials. Background in ceramics required.
Prerequisites: Permission of instructor.
Fees: Yes.

ARTS 443 Throwing Workshop III 3 Credits
Advanced problems in clay construction and design, with an emphasis on the development of personal style. Develop skills to create thrown multiples in clay. Discussion of marketing and establishing a studio to create clay art.
Prerequisites: ARTS 344.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTS 444 Throwing Workshop IV 3 Credits
Continued exploration of thematic concepts for the development of a BFA exhibit in clay. Development of personal style on the potter's wheel, including advanced alteration techniques. Independent work via student/professor contract to create body of artwork with professional presentation.
Prerequisites: ARTS 443.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTS 451 Drawing Workshop III 3 Credits
Senior level drawing experience. Development of drawings used in senior exhibitions and professional purposes. Exploration and analysis of the historical and contemporary contexts that best match each student's individual style.
Prerequisites: ARTS 352.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTS 452 Drawing Workshop IV 3 Credits
Advanced drawing techniques. Subject matter, form, and content are determined by the student under the guidance of the instructor. Ability to speak and write articulately about created artwork developed.
Prerequisites: ARTS 451.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTS 453 Visual and Conceptual Thinking II 3 Credits
Advanced application of techniques covered in ARTS 353. Emphasis is on questioning the very nature of creativity and creative problem solving itself. Media selections are made with the concept or content of the projects in mind.
Prerequisites: ARTS 353.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTS 464 Figure Painting II 3 Credits
Advanced level exploration of the human figure in relation to conceptually based narrative paintings. Variety of media is encouraged. Students will use the model to develop a consistent body of work towards their BFA show. Individual and group critiques ongoing as well as discussion about individual concepts and direction.
Prerequisites: ARTS 364.
Fees: Yes.

ARTS 465 Mixed Media Painting 3 Credits
Advanced level bridge between 2D and 3D mediums. Focus on manipulation of various materials to give textural vitality to a conceptually based body of work leading toward the BFA show. Individual and group critiques ongoing as well as discussion of individual concepts and direction.
Prerequisites: ARTS 365.
Fees: Yes.

ARTS 470 Advanced Lithography 3 Credits
Continued development and refinement of techniques and concepts of fine art lithography, including: stone lithography, polyester plate lithography, and photo lithography. Independent technical research and creative critical thinking as applied to the development of personal conceptual artistic direction.
Prerequisites: ARTS 370.
Terms Typically Offered: Spring.

ARTS 471 Printmaking Workshop III 3 Credits
Continued technical and conceptual research into personal artistic direction as it relates to printmaking media. Development of professional level artwork for senior thesis portfolio. Artwork created will be matted and documented digitally.
Prerequisites: ARTS 372.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTS 472 Printmaking Workshop IV 3 Credits
Technical refinement and conceptual development in printmaking. Refining a personal direction for the artist's imagery. Development of professional level artwork for senior thesis portfolio. Artwork created will be matted and documented digitally.
Prerequisites: ARTS 471.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTS 473 Printmaking Workshop V 3 Credits
Creation of a mature and cohesive series of prints that demonstrate a solution or solutions to a creative problem posed by the individual. Artwork will demonstrate technical mastery and conceptual sophistication. Student will provide a mature written artist statement and high-quality photo documentation. Oral critique where the artist verbalizes the context of their artwork within the contemporary art world.
Prerequisites: ARTS 472.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTS 474 Throwing Workshop V 3 Credits
Exploration of the potter's wheel to develop personal style in the throwing process. Independent work via student/professor contract. Body of work created for professional presentation.
Prerequisites: ARTS 444.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTS 476 Printmaking: Portfolio Development 1 Credit
Development of a professional body of artwork that demonstrates technical, creative, and conceptual maturity. Students will design, implement, and assess their own creative research goals under the tutelage of the professor. Artwork will be photographed and presented in a portfolio with the intention of entering the art profession. The course may be repeated for credit.
Prerequisites: ARTS 371.
Terms Typically Offered: Fall, J-Term, Spring.
Course may be taken 4 times for credit.
Fees: Yes.

ARTS 484 Ceramic Sculpture Workshop III 3 Credits
Continued thematic concepts for the development of a BFA exhibit in clay. Independent work via student/professor contract. Artwork based for professional presentation.
Prerequisites: ARTS 388.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTS 487 Bronze Commissions Workshop II 3 Credits
Special bronze commissions and projects as a liaison project with schools or the community. Direct experience at creating art from inception to mounted sculpture. Presentations to respective clients, budgets, armatures, sculpting, molds, wax, investing, and finishing of the bronze. Basing of the sculptures complete the process. Continuation of a year-long project at the 400 level.
Prerequisites: ARTS 387.

ARTS 488 Ceramic Sculpture Workshop IV 3 Credits
General introduction to media, techniques, and history of ceramic art to create a deeper appreciation for the creative ceramics process. Further development of thematic concepts for the development of a BFA exhibit in clay. Independent work via student/professor contract.
Prerequisites: ARTS 484.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTS 489 Ceramic Sculpture Workshop V 3 Credits
Further exploration of thematic concepts for the development of a BFA exhibit in clay. Independent work via student/professor contract. Artwork created for professional presentation.
Prerequisites: ARTS 488.
Terms Typically Offered: Fall, Spring.

ARTS 491 Painting Workshop III 3 Credits
Continued development of professional portfolios of artwork used for senior exhibitions and other professional shows. Artistic influences explored. Oral and written communication skills developed in preparation for professional interaction. End of semester artwork documented digitally.
Prerequisites: ARTS 392.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ARTS 492 Painting Workshop IV 1-3 Credits
Technical refinement and conceptual development. Refining a personal direction for the artist's imagery. Ability to speak and write about work developed. End of semester artwork documented digitally.
Prerequisites: ARTS 491.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.
Fees: Yes.

ARTS 495 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

ARTS 496 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ARTS 499 Internship 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Athletic Training (ATRN)

Courses

ATRN 502 Research Methods II 3 Credits
Examination of the methods of research in kinesiology. Topics include epidemiology, public health, and evidence based practice.
Prerequisites: KINE 501.
Terms Typically Offered: Spring.

ATRN 506 Clinical Skills in Athletic Training 1 Credit
Introduction of skills for the selection and application of prophylactic interventions in athletic training. Focus will be on skills acquisition for orthopedic taping and wrapping, durable medical equipment fitting, and fit/removal of protective equipment to minimize the risk of injury or re-injury.
Prerequisites: Admission to the MS in Athletic Training program.
Terms Typically Offered: Summer.
Fees: Yes.

ATRN 507 Acute Care in Athletic Training 3 Credits
Knowledge and application of skills related to the evaluation and management of patients with acute conditions, including triaging conditions that are life threatening or otherwise emergent. Hands-on patient-care skills will be emphasized.
Prerequisites: Admission to the MS in Athletic Training program.
Terms Typically Offered: Summer.
Fees: Yes.

ATRN 508 Therapeutic Modalities 2 Credits
Theory and application of therapeutic interventions for musculoskeletal injuries. Focuses on the pathophysiology of human tissue in response to injury, the neuropathway of pain perception, and the influence of various interventions on the early phases of the rehabilitation process.
Prerequisites: Admission to the MS in Athletic Training program.
Terms Typically Offered: Summer.

ATRN 511 Professionalism in Athletic Training/Healthcare Ethics I 1 Credit
Introduction to Athletic Training profession. Foundational athletic training skills and programmatic and professional policies, procedures, and standards of practice.
Prerequisites: Admission to the MS Athletic Training program.
Terms Typically Offered: Summer.

ATRN 512 Professionalism in Athletic Training/Healthcare Ethics II 3 Credits
Survey of experience and knowledge gained in Athletic Training Program. Certification examination preparation, employment preparation, and capstone experience.
Prerequisites: ATRN 511.
Terms Typically Offered: Spring.

ATRN 513 Administration in Athletic Training 3 Credits
Exploration of athletic training administration. Concentration on human resources, healthcare delivery models, payor systems, facility design and function, and budgets.
Prerequisites: ATRN 553 and ATRN 554.
Corequisites: ATRN 517 and ATRN 536.
Terms Typically Offered: Fall.

ATRN 515 Seminar in Evidence-Based Practice Research I 1 Credit
Examination of the methods of research in athletic training, with a focus on intervention effectiveness.
Prerequisites: ATRN 506, ATRN 507, ATRN 508, and ATRN 540.
Corequisites: ATRN 531, ATRN 541, ATRN 542, ATRN 551.
Terms Typically Offered: Fall.

ATRN 516 Seminar in Evidence-Based Practice Research II 1 Credit
Examination of the methods of research in athletic training, with a focus on epidemiology and health care disparities.
Prerequisites: ATRN 515, ATRN 531, ATRN 541, ATRN 542, and ATRN 551.
Corequisites: ATRN 532, ATRN 543, ATRN 544 and ATRN 552.
Terms Typically Offered: Spring.

ATRN 517 Seminar in Evidence-Based Practice Research III 1 Credit
Examination of the methods of research in athletic training, with a focus on prevention of injuries.
Prerequisites: ATRN 553 and ATRN 554.
Corequisites: ATRN 513 and ATRN 536.
Terms Typically Offered: Fall.

ATRN 521 Injury and Illness Diagnosis and Management I 4 Credits
Evaluation techniques and care of common injuries and illnesses. Integration of anatomical structures, physiology principles, and evaluation techniques to provide a basis for clinical decision making in an injury/illness management environment. Review of the theoretical and scientific basis for, and practical use of, traditional therapeutic interventions utilized in the treatment of acute and chronic injury and illness.
Prerequisites: Admission to the MS Athletic Training program.
Terms Typically Offered: Fall.

ATRN 522 Injury and Illness Diagnosis and Management II 4 Credits
Evaluation techniques and care of less common injuries and illnesses. Integration of anatomical structures, physiology principles, and evaluation techniques to provide a basis for clinical decision making in an injury/illness management environment. Review of the theoretical and scientific basis for, and practical use of, traditional therapeutic interventions utilized in the treatment of acute and chronic injury and illness.
Prerequisites: ATRN 521.
Terms Typically Offered: Spring.

ATRN 523 Advanced Therapeutic Interventions 1 Credit
Exploration of emerging and/or advanced therapeutic interventions. Review of the theoretical and scientific basis for, and practical use of, emerging and/or advanced therapeutic interventions utilized in the treatment of acute and chronic injury and illness.
Prerequisites: ATRN 522.
Terms Typically Offered: Summer.

ATRN 524 Pharmacology and Sport Performance 3 Credits
Exploration of pharmacology and sport performance in an athletic patient population. Review of the basics of pharmacology, supplements, and wellness/healthy nutrition, as well as the components of a comprehensive program to maximize sport performance.
Prerequisites: ATRN 523.
Terms Typically Offered: Spring.

ATRN 531 Clinical Education in Athletic Training I 2 Credits
Exploration of athletic training clinical experiences. Concentration on development of clinical skills as a novice clinician, with focus on patient-centered care, evidence-based practice, and critical thinking.
Prerequisites: ATRN 506, ATRN 507, ATRN 508, and ATRN 540.
Corequisites: ATRN 515, ATRN 541, ATRN 542, and ATRN 551.
Terms Typically Offered: Fall.
Fees: Yes.

ATRN 532 Clinical Education in Athletic Training II 2 Credits
Exploration of athletic training clinical experiences. Concentration on development of clinical skills as an advanced beginner clinician, with focus on patient-centered care, evidence-based practice, and critical thinking.
Prerequisites: ATRN 515, ATRN 531, ATRN 541, ATRN 542, and ATRN 551.
Corequisites: ATRN 516, ATRN 543, ATRN 544, and ATRN 552.
Terms Typically Offered: Spring.

ATRN 533 Clinical Education in Athletic Training III 3 Credits
Exploration of athletic training clinical experiences. Concentration on application of clinical skills as a competent clinician with focus on patient-centered care, evidence-based practice, and critical thinking.
Prerequisites: ATRN 532.
Terms Typically Offered: Fall.

ATRN 534 Clinical Education in Athletic Training IV 3 Credits
Exploration of athletic training clinical experiences. Concentration on application of clinical skills as an experienced clinician with focus on patient-centered care, evidence-based practice, and critical thinking.
Prerequisites: ATRN 533.
Terms Typically Offered: Spring.

ATRN 536 Clinical Education in Athletic Training III 4 Credits
Exploration of athletic training clinical experiences. Concentration on application of clinical skills as a competent clinician, with focus on patient-centered care, evidence-based practice, and critical thinking.
Prerequisites: ATRN 553 and ATRN 554.
Corequisites: ATRN 513 and ATRN 517.
Terms Typically Offered: Fall.

ATRN 537 Clinical Education in Athletic Training IV 4 Credits
Exploration of athletic training clinical experiences. Concentration on application of clinical skills as an experienced clinician, with focus on patient-centered care, evidence-based practice, and critical thinking.
Prerequisites: ATRN 513, ATRN 517 and ATRN 536.
Corequisites: ATRN 580 and ATRN 593.
Terms Typically Offered: Spring.

ATRN 540 Clinical Anatomy 3 Credits
Application of anatomy as it relates to injury pathologies for future healthcare practitioners. Skill acquisition of clinical palpation, range-of-motion assessment, and manual muscle testing.
Prerequisites: Admission to the MS in Athletic Training Program.
Terms Typically Offered: Summer.

ATRN 541 Clinical Evaluation of Lower Extremity Injuries 3 Credits
Recognition, evaluation, and clinical diagnosis of musculoskeletal and neurological pathologies of the lower extremity. Emphasis is placed on using an evidence-based approach to performing a comprehensive, systematic clinical examination in athletic training settings.
Prerequisites: ATRN 506, ATRN 507, ATRN 508 and ATRN 540.
Corequisites: ATRN 515, ATRN 531, ATRN 542 and ATRN 551.
Terms Typically Offered: Fall.

ATRN 542 Clinical Evaluation of Head and Spine Injuries 3 Credits
Recognition, evaluation, and clinical diagnosis of musculoskeletal and neurological pathologies of the head, neck, and spine. Emphasis is placed on using an evidence-based approach to performing a comprehensive, systematic clinical examination in athletic training settings.
Prerequisites: ATRN 506, ATRN 507, ATRN 508 and ATRN 540.
Corequisites: ATRN 515, ATRN 531, ATRN 541 and ATRN 551.
Terms Typically Offered: Fall.

ATRN 543 Clinical Evaluation of Upper Extremity Injuries 3 Credits
Recognition, evaluation, and clinical diagnosis of musculoskeletal and neurological pathologies of the upper extremity. Emphasis is placed on using an evidence-based approach to performing a comprehensive, systematic clinical examination in athletic training settings.
Prerequisites: ATRN 515, ATRN 531, ATRN 541, ATRN 542 and ATRN 551.
Corequisites: ATRN 516, ATRN 532, ATRN 544 and ATRN 552.
Terms Typically Offered: Spring.

ATRN 544 General Health Conditions and Pharmacology 3 Credits
Exploration of general health conditions and pharmacology in an athletic patient population. Emphasizes the basics of pharmacology and application of this knowledge to health conditions common in an athletic population using a systems approach.
Prerequisites: ATRN 515, ATRN 531, ATRN 541, ATRN 542 and ATRN 551.
Corequisites: ATRN 516, ATRN 532, ATRN 543 and ATRN 552.
Terms Typically Offered: Spring.

ATRN 551 Principles of Rehabilitation 3 Credits
Theory, application, and practical use of traditional therapeutic interventions utilized in the treatment of musculoskeletal injuries from initial injury to return to activity.
Prerequisites: ATRN 506, ATRN 507, ATRN 508 and ATRN 540.
Corequisites: ATRN 515, ATRN 531, ATRN 541 and ATRN 542.
Terms Typically Offered: Fall.

ATRN 552 Advanced Rehabilitation and Manual Therapy 3 Credits
Theory, application, and practical use of advanced therapeutic interventions utilized in the treatment of musculoskeletal injuries from initial injury to return to activity. Topics include: various manual therapies, advanced screening techniques, functional movement analysis and intervention, and non-traditional modalities.
Prerequisites: ATRN 515, ATRN 531, ATRN 541, ATRN 542 and ATRN 551.
Corequisites: ATRN 516, ATRN 532, ATRN 543 and ATRN 544.
Terms Typically Offered: Spring.

ATRN 553 Psychosocial Interventions in Athletic Training 1 Credit
Preparation to educate patients about their overall health and mental wellness strategies across the lifespan. A focus on the role of mental health both before and after injury, along with psychosocial strategies needed to assist patients who may exhibit a variety of mental health disorders.
Prerequisites: ATRN 516, ATRN 532, ATRN 543, ATRN 544 and ATRN 552.
Corequisites: ATRN 554.
Terms Typically Offered: Summer.

ATRN 554 Functional Performance in Athletic Training 3 Credits
Exploration of functional performance in an athletic patient population. Review of the basics of wellness/healthy nutrition and the components of a comprehensive program to maximize functional performance.
Prerequisites: ATRN 516, ATRN 532, ATRN 543, ATRN 544 and ATRN 552.
Corequisites: ATRN 553.
Terms Typically Offered: Summer.

ATRN 580 Transition to Practice in Athletic Training 2 Credits
Preparation for the national certification examination for athletic trainers. Focus on the soft-skills necessary for transition to a successful career in athletic training. Topics include: verbal and non-verbal communication, emotional intelligence, conflict management, interviewing skills, and leadership development.
Prerequisites: ATRN 513, ATRN 517 and ATRN 536.
Corequisites: ATRN 537 and ATRN 593.
Terms Typically Offered: Spring.
Fees: Yes.

ATRN 587 Research 3 Credits

ATRN 593 Capstone Research Project in Athletic Training 2 Credits
Application of evidence-based principles to develop a clinical question dealing with diagnosis or intervention. Once identified, students will initiate a literature review to gather evidence to answer the clinical question using the format of a Critically Appraised Topic (CAT).
Prerequisites: ATRN 513, ATRN 517 and ATRN 536.
Corequisites: ATRN 537 and ATRN 580.
Terms Typically Offered: Spring.

Aviation Technology (AVTN)

Courses

AVTN 101 Private Pilot Ground School 4 Credits
Preparation for Private Pilot Airplane, Single Engine, Land-FAA Knowledge Exam.
Terms Typically Offered: Fall.
Fees: Yes.

AVTN 102 Private Pilot Flight 4 Credits
Preparation in flight training for the Private Pilot Airplane, Single-Engine, Land FAA Practical Test and completing requirements for the Private Pilot Certificate.
Terms Typically Offered: Fall, Spring, Summer.
Fees: Yes.

AVTN 105 Aviation Meteorology 4 Credits
Recognition, interpretation, and evaluation of atmospheric weather as it relates to and affects aviation.
Terms Typically Offered: Spring.

AVTN 111 Instrument Pilot Ground School 4 Credits
Preparation for the FAA Instrument Rating Knowledge Exam.
Terms Typically Offered: Fall, Spring, Summer.
Fees: Yes.

AVTN 112 Instrument Pilot Flight 4 Credits
Preparation in flight training for the Instrument Rating, Single Engine Airplane FAA Practical Test and completing requirements for the Instrument Rating.
Terms Typically Offered: Fall, Spring, Summer.
Fees: Yes.

AVTN 140 Aircraft Systems 4 Credits
Introduction to the basic mechanical systems and structural components of aircraft to supplement instruction received in flight training.
Terms Typically Offered: Fall, Spring.

AVTN 196 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

AVTN 201 Commercial Pilot Ground School 2 Credits
Preparation for the Commercial Pilot Airplane, Single Engine, Land FAA Knowledge Exam.
Terms Typically Offered: Fall, Spring, Summer.
Fees: Yes.

AVTN 202 Commercial Pilot Flight I 4 Credits
The first of a two-part sequence of flight training in preparation for the Commercial Pilot Certificate, Airplane, Single Engine Land FAA Practical Test. Consists of the cross country aeronautical experience required for the Commercial Certificate.
Terms Typically Offered: Fall, Spring, Summer.
Fees: Yes.

AVTN 203 Commercial Pilot Flight II 3 Credits
Preparation in flight training for the Commercial Pilot, Airplane Single Engine, Land FAA Practical Test, completing requirements for the Commercial Pilot Certificate.
Terms Typically Offered: Fall, Spring, Summer.
Fees: Yes.

AVTN 205 Mountain Flying Ground School 1 Credit
Preparation of the unique aspects of flying in mountainous terrain and the additional knowledge and proficiency necessary for safe and efficient operation in mountain and high altitude terrain.
Terms Typically Offered: Spring.

AVTN 206 Crew Resource Management 1 Credit
Comprehensive classroom instruction coupled with Line Oriented Flight Training (LOFT) in a Flight Training Device. Covers the knowledge, skills, and attitudes necessary to enhance safety and operate effectively as a member of an airplane/helicopter crew.
Terms Typically Offered: Spring.

AVTN 207 Multi-Engine Ground School 1 Credit
Preparation for the FAA Practical Test for Commercial Pilot, Airplane Multi-Engine Land.
Terms Typically Offered: Spring.
Fees: Yes.

AVTN 208 Multi-Engine Flight 1 Credit
Preparation in flight training for the Airplane, Multi-Engine Rating and completing requirements for this rating.
Terms Typically Offered: Spring.
Fees: Yes.

AVTN 211 Fundamentals of Instruction 2 Credits
Preparation for the FAA Fundamentals of Instructing Knowledge Exam.
Terms Typically Offered: Spring.

AVTN 212 Flight Instructor Ground School 2 Credits
Preparation for the FAA Flight Instructor Airplane Knowledge Exam.
Terms Typically Offered: Spring.
Fees: Yes.

AVTN 213 Flight Instructor Flight 1 Credit
Preparation of mastery in: fundamentals of instructing, technical subject areas, preflight preparation and lesson, grand and airport operations, take offs and climbs, fundamentals of flight, stalls, spins, maneuvering during slow flight, basic instrument maneuvers, performance maneuvers, ground reference maneuvers, emergency operations, approaches, landings, and after landing procedures, by passing the FAA Practical Test for Flight Instructor Airplane, Single-Engine Land.
Terms Typically Offered: Spring.
Fees: Yes.

AVTN 218 ATC Procedures 4 Credits
Preparation of Instrument Flight Rules (IFR) operations in the Air Traffic Control (ATC) System, including: general procedures, terminal and IFR procedures, radar and non-radar environments, enroute procedures, and special and emergency procedures.
Terms Typically Offered: Fall.

AVTN 245 Aviation Safety 2 Credits
Knowledge and aeronautical decision making for the professional aviation environment. FAA regulations and standards will be taught in order for students to make sound judgments and decisions in the field of aviation. National Transportation Safety Board accident reports will be thoroughly reviewed as they are published to determine causal factors.
Terms Typically Offered: Spring.

AVTN 247 Aviation Physiology 2 Credits
Human body responses in the aviation environment, including: hypoxia, fatigue, use of alcohol/medication, stress, rapid decompression, and illness. The effects of these factors on airmen's decision making, crew resource management, and the in-flight environment will be taught. Students will learn the resources available to aviators and their passengers.
Terms Typically Offered: Spring.

AVTN 296 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Biology (BIOL)

Courses

BIOL 101 General Human Biology-GTSC1 3 Credits
Scientific method, ecology, pollution, drugs, reproduction, cancer, heart disease, nutrition, and selected body structure and function relationships.
Corequisites: BIOL 101L.
Essential Learning Categories: Natural Science with lab - Both the lab and lecture must be completed
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring, Summer.

BIOL 101L General Human Biology Laboratory-GTSC1 1 Credit
Scientific method, ecology, pollution, drugs, reproduction, cancer, heart disease, nutrition, and selected body structure and function relationships.
Corequisites: BIOL 101.
Essential Learning Categories: Natural Science with lab - Both the lab and lecture must be completed
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring, Summer.
Fees: Yes.

BIOL 105 Attributes of Living Systems-GTSC1 3 Credits
Cell structure and function, cell energetics, biochemistry, and genetics. High school chemistry recommended.
Corequisites: BIOL 105L.
Essential Learning Categories: Natural Science with lab - Both the lab and lecture must be completed
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

BIOL 105L Attributes of Living Systems Laboratory-GTSC1 1 Credit
Cell structure and function, cell energetics, biochemistry, and genetics. High school chemistry recommended.
Corequisites: BIOL 105.
Essential Learning Categories: Natural Science with lab - Both the lab and lecture must be completed
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.
Fees: Yes.

BIOL 106 Principles of Animal Biology 3 Credits
Broad morphological, physiological, and ecological features of principal phyla of animals and relationships between them.
Prerequisites: BIOL 105.
Corequisites: BIOL 106L.
Terms Typically Offered: Fall, Spring.

BIOL 106L Principles of Animal Biology Laboratory 1 Credit
Broad morphological, physiological, and ecological features of principal phyla of animals and relationships between them.
Prerequisites: BIOL 105.
Corequisites: BIOL 106.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

BIOL 107 Principles of Plant Biology 3 Credits
Reproductive biology, anatomy, physiology, phylogeny, and ecology of the major groups of plants.
Prerequisites: BIOL 105.
Corequisites: BIOL 107L.
Terms Typically Offered: Fall, Spring.

BIOL 107L Principles of Plant Biology Laboratory 1 Credit
Reproductive biology, anatomy, physiology, phylogeny, and ecology of the major groups of plants.
Prerequisites: BIOL 105.
Corequisites: BIOL 107.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

BIOL 108 Diversity of Organisms-GTSC1 3 Credits
Broadly integrated survey of biological diversity with an emphasis on evolutionary relationships, ecology, and functional anatomical features of major groups.
Corequisites: BIOL 108L.
Essential Learning Categories: Natural Science with lab - Both the lab and lecture must be completed
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

BIOL 108L Diversity of Organisms Laboratory-GTSC1 1 Credit
Broadly integrated survey of biological diversity with an emphasis on evolutionary relationships, ecology, and functional anatomical features of major groups.
Corequisites: BIOL 108.
Essential Learning Categories: Natural Science with lab - Both the lab and lecture must be completed
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.
Fees: Yes.

BIOL 113 Outdoor Survival 3 Credits
Skills necessary for biologists working in the field, including wilderness survival, wilderness medicine, camping/climbing skills, edible/poisonous plants, and urban survival skills.
Terms Typically Offered: Spring.

BIOL 196 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

BIOL 208 Fundamentals of Ecology and Evolution 3 Credits
Introduction to current theory and experimental work in ecology and evolutionary biology. Topics include: biology of populations, species interactions, community structure, evolution by natural selection, population genetics, and speciation.
Prerequisites: BIOL 105/BIOL 105L; and BIOL 106/BIOL 106L or BIOL 107/BIOL 107L or BIOL 108/BIOL 108L (may be taken concurrently).
Corequisites: BIOL 208L.
Terms Typically Offered: Fall, Spring, Summer.

BIOL 208L Fundamentals of Ecology and Evolution Laboratory 1 Credit
Introduction to current theory and experimental work in ecology and evolutionary biology. Topics include: biology of populations, species interactions, community structure, evolution by natural selection, population genetics, and speciation.
Prerequisites: BIOL 105/BIOL 105L; and BIOL 106/BIOL 106L or BIOL 107/BIOL 107L or BIOL 108/BIOL 108L (may be taken concurrently).
Corequisites: BIOL 208.
Terms Typically Offered: Fall, Spring, Summer.
Fees: Yes.

BIOL 209 Human Anatomy and Physiology I 3 Credits
Study of the form and function of several major systems of the human body. For students with an interest in pre-med, nursing, human health, and biology. A background in general biology is recommended.
Corequisites: BIOL 209L.
Terms Typically Offered: Fall, Spring, Summer.

BIOL 209L Human Anatomy and Physiology I Laboratory 1 Credit
Study of the form and function of several major systems of the human body. For students with an interest in pre-med, nursing, human health, and biology. A background in general biology is recommended.
Corequisites: BIOL 209.
Terms Typically Offered: Fall, Spring, Summer.
Fees: Yes.

BIOL 210 Human Anatomy and Physiology II 3 Credits
Continued study of human anatomy and physiology, covering additional body systems and disease processes. For students with an interest in pre-med, nursing, human health, and biology.
Prerequisites: BIOL 209/BIOL 209L.
Corequisites: BIOL 210L.
Terms Typically Offered: Fall, Spring.

BIOL 210L Human Anatomy and Physiology II Laboratory 1 Credit
Continued study of human anatomy and physiology, covering additional body systems and disease processes. For students with an interest in pre-med, nursing, human health, and biology.
Prerequisites: BIOL 209/BIOL 209L.
Corequisites: BIOL 210.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

BIOL 217 Forensic Entomology 2 Credits
Introduction to entomology in forensic science, focusing on how insects aid in crime scene investigations. Topics include: insect taxonomy, lifecycles, ecological roles, and forensic analysis, including estimating time of death, the influence of environmental factors on decomposition, and the legal implications of entomological evidence.
Corequisites: BIOL 217L.
Terms Typically Offered: Fall.

BIOL 217L Forensic Entomology Laboratory 1 Credit
Introduction to entomology in forensic science, focusing on how insects aid in crime scene investigations. Topics include: insect taxonomy, lifecycles, ecological roles, and forensic analysis, including estimating time of death, the influence of environmental factors on decomposition, and the legal implications of entomological evidence.
Corequisites: BIOL 217.
Terms Typically Offered: Fall.
Fees: Yes.

BIOL 241 Pathophysiology 4 Credits
Function of the human body with emphasis on interpretation of those functions in relation to disease processes.
Prerequisites: BIOL 209/BIOL 209L.
Terms Typically Offered: Fall, Spring, Summer.

BIOL 250 Introduction to Microbiology-GTSC1 3 Credits
Survey of major types of microorganisms, with an emphasis on bacteria. Microbial taxonomy, structure, metabolism, genetics, and aspects of infectious disease and the immune host response. Labs cover techniques used for growth, quantification, and identification of microorganisms, including aseptic technique, light microscopy, serial dilutions, and use of a variety of media to identify microorganisms.
Corequisites: BIOL 250L.
Essential Learning Categories: Natural Science with lab - Both the lab and lecture must be completed
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

BIOL 250L Introduction to Microbiology Laboratory-GTSC1 1 Credit
Survey of major types of microorganisms, with an emphasis on bacteria. Microbial taxonomy, structure, metabolism, genetics, and aspects of infectious disease and the immune host response. Labs cover techniques used for growth, quantification, and identification of microorganisms, including aseptic technique, light microscopy, serial dilutions, and use of a variety of media to identify microorganisms.
Corequisites: BIOL 250.
Essential Learning Categories: Natural Science with lab - Both the lab and lecture must be completed
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.
Fees: Yes.

BIOL 296 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

BIOL 301 Principles of Genetics 3 Credits
Principles of genetics at the organismal, cellular, and molecular levels. Includes the unique genetic processes of prokaryotic organisms, eukaryotic organisms, and viruses.
Prerequisites: BIOL 105/BIOL 105L and MATH 113 or higher.
Corequisites: BIOL 301L.
Terms Typically Offered: Fall, Spring.

BIOL 301L Principles of Genetics Laboratory 1 Credit
Principles of genetics at the organismal, cellular, and molecular levels. Includes the unique genetic processes of prokaryotic organisms, eukaryotic organisms, and viruses.
Prerequisites: BIOL 105/BIOL 105L and MATH 113 or higher.
Corequisites: BIOL 301.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

BIOL 302 Cellular Biology 3 Credits
Form, function, and bioenergetics of the cell.
Prerequisites: BIOL 301/BIOL 301L and CHEM 132/CHEM 132L.
Terms Typically Offered: Fall, Spring.

BIOL 310 Developmental Biology 3 Credits
Exploration of embryonic growth and mechanisms of tissue differentiation in multicellular organisms. Emphasis on gene regulation, cell signaling, developmental patterning, and organ system formation in embryos.
Prerequisites: BIOL 301/BIOL 301L.
Terms Typically Offered: Spring.

BIOL 310L Developmental Biology Laboratory 1 Credit
Exploration of embryonic growth and mechanisms of tissue differentiation in multicellular organisms. Emphasis on gene regulation, cell signaling, developmental patterning, and organ system formation in embryos. Optional lab component for BIOL 310.
Prerequisites: BIOL 301/BIOL 301L.
Corequisites: BIOL 310.
Terms Typically Offered: Spring.
Fees: Yes.

BIOL 315 Epidemiology 3 Credits
Characteristic patterns of disease occurrence, as related to individuals, geographic location, and time. Factors affecting disease occurrence, the nature of vital statistics, sampling procedures, and study design.
Prerequisites: BIOL 105/BIOL 105L or BIOL 209/BIOL 209L.
Terms Typically Offered: Fall.

BIOL 316 Animal Behavior 3 Credits
Mechanisms and evolution of animal behavior. Analysis of a variety of social and individual behaviors across the animal kingdom at both proximate and ultimate levels.
Prerequisites: BIOL 106/BIOL 106L or BIOL 108/BIOL 108L; and BIOL 208/BIOL 208L.
Corequisites: BIOL 316L.
Terms Typically Offered: Spring.

BIOL 316L Animal Behavior Laboratory 1 Credit
Mechanisms and evolution of animal behavior. Analysis of a variety of social and individual behaviors across the animal kingdom at both proximate and ultimate levels.
Prerequisites: BIOL 106/BIOL 106L or BIOL 108/BIOL 108L; and BIOL 208/BIOL 208L.
Corequisites: BIOL 316.
Terms Typically Offered: Spring.
Fees: Yes.

BIOL 320 Plant Systematics 3 Credits
Systematics of the flowering plants, including classification, nomenclature, and phylogenetic relationships.
Prerequisites: BIOL 105/BIOL 105L; BIOL 107/BIOL 107L or BIOL 108/BIOL 108L; and BIOL 208/BIOL 208L.
Terms Typically Offered: Fall.

BIOL 321 Taxonomy of Grasses 2 Credits
Identification, classification, anatomy, ecology, and evolution of the grass, sedge, and rush plant families.
Prerequisites: BIOL 107/BIOL 107L or BIOL 108/BIOL 108L.
Corequisites: BIOL 321L.
Terms Typically Offered: Fall.

BIOL 321L Taxonomy of Grasses Laboratory 2 Credits
Identification, classification, anatomy, ecology, and evolution of the grass, sedge, and rush plant families.
Prerequisites: BIOL 107/BIOL 107L or BIOL 108/BIOL 108L.
Corequisites: BIOL 321.
Terms Typically Offered: Fall.
Fees: Yes.

BIOL 322 Plant Identification 2 Credits
Identification of the local flora, including plant anatomy and morphology as well as environmental, ecological, and historical constraints on plant distribution.
Prerequisites: BIOL 107/BIOL 107L or BIOL 108/BIOL 108L.
Corequisites: BIOL 322L.
Terms Typically Offered: Spring.

BIOL 322L Plant Identification Laboratory 2 Credits
Identification of the local flora, including plant anatomy and morphology as well as environmental, ecological, and historical constraints on plant distribution.
Prerequisites: BIOL 107/BIOL 107L or BIOL 108/BIOL 108L.
Corequisites: BIOL 322.
Terms Typically Offered: Spring.
Fees: Yes.

BIOL 331 Insect Biology 3 Credits
Insect taxonomy, evolution, ecology, and physiology.
Prerequisites: BIOL 106/BIOL 106L or BIOL 108/BIOL 108L.
Corequisites: BIOL 331L.
Terms Typically Offered: Fall.

BIOL 331L Insect Biology Laboratory 2 Credits
Insect taxonomy, evolution, ecology, and physiology.
Prerequisites: BIOL 106/BIOL 106L or BIOL 108/BIOL 108L.
Corequisites: BIOL 331.
Terms Typically Offered: Fall.
Fees: Yes.

BIOL 336 Fish Biology 3 Credits
Study of the diversity of fishes, including evolution, morphology, physiology, ecology, and conservation.
Prerequisites: BIOL 106/BIOL 106L.
Corequisites: BIOL 336L.
Terms Typically Offered: Spring.

BIOL 336L Fish Biology Laboratory 1 Credit
Study of the diversity of fishes, including evolution, morphology, physiology, ecology, and conservation.
Prerequisites: BIOL 106/BIOL 106L.
Corequisites: BIOL 336.
Terms Typically Offered: Spring.
Fees: Yes.

BIOL 338 Small Mammal Biology 3 Credits
Introduction to the life history and taxonomic classification of small mammals. Focus includes the unique constraints and physiological challenges imposed by small body size (less than 5kg).
Prerequisites: Junior or Senior Standing.
Terms Typically Offered: Fall.

BIOL 339 Winter Ecology 3 Credits
Study of terrestrial and aquatic ecosystems in winter, with a focus on the physical processes, physiological adaptations, life history strategies, and ecological interactions that characterize this season.
Prerequisites: Upper-division standing.
Terms Typically Offered: Spring.

BIOL 343 Immunology 3 Credits
Immune system of animals, with emphasis on human immune response. Includes the immune organs and both cellular and humoral responses.
Prerequisites: BIOL 302, or BIOL 301/BIOL 301L.
Terms Typically Offered: Fall.

BIOL 344 Forensic Molecular Biology 3 Credits
Molecular biology and genetics used in forensic investigations, including the genetic basis of diversity and DNA typing techniques.
Prerequisites: BIOL 105/BIOL 105L and CHEM 131/CHEM 131L.
Corequisites: BIOL 344L.
Terms Typically Offered: Spring.

BIOL 344L Forensic Molecular Biology Laboratory 1 Credit
Molecular biology and genetics used in forensic investigations, including the genetic basis of diversity and DNA typing techniques.
Prerequisites: BIOL 105/BIOL 105L and CHEM 131/CHEM 131L.
Corequisites: BIOL 344.
Terms Typically Offered: Spring.
Fees: Yes.

BIOL 350 Microbiology 3 Credits
Survey of major types of microorganisms, with emphasis on molecular biology of growth, morphology, metabolism, genetics, and ecology of microorganisms. Includes aspects of industrial microbiology, clinical microbiology, and genetic engineering. Labs cover growth, quantification, and identification of microorganisms through a variety of methods, including microscopy and molecular techniques.
Prerequisites: BIOL 105/BIOL 105L, and CHEM 121/CHEM 121L or CHEM 131/CHEM 131L.
Corequisites: BIOL 350L.
Terms Typically Offered: Spring.

BIOL 350L Microbiology Laboratory 1 Credit
Survey of major types of microorganisms, with emphasis on molecular biology of growth, morphology, metabolism, genetics, and ecology of microorganisms. Includes aspects of industrial microbiology, clinical microbiology, and genetic engineering. Labs cover growth, quantification, and identification of microorganisms through a variety of methods, including microscopy and molecular techniques.
Prerequisites: BIOL 105/BIOL 105L, and CHEM 121/CHEM 121L or CHEM 131/CHEM 131L.
Corequisites: BIOL 350.
Terms Typically Offered: Spring.
Fees: Yes.

BIOL 351 Ecological Physiology 3 Credits
Diversity of form and function among vertebrates. Emphasizes the evolution of physiological processes to ecological challenges at the organismal level.
Prerequisites: BIOL 106 or BIOL 108.
Corequisites: BIOL 351L.
Terms Typically Offered: Fall.

BIOL 351L Ecological Physiology Laboratory 1 Credit
Diversity of form and function among vertebrates. Emphasizes the evolution of physiological processes to ecological challenges at the organismal level.
Prerequisites: BIOL 106 or BIOL 108.
Corequisites: BIOL 351.
Terms Typically Offered: Fall.
Fees: Yes.

BIOL 352 Human Physiology 3 Credits
In-depth study of human function. Physiology of major human body systems will be studied at the cellular, tissue, and systemic levels, emphasizing homeostatic mechanisms and integrative function.
Prerequisites: BIOL 105 or BIOL 209.
Corequisites: BIOL 352L.
Terms Typically Offered: Spring.

BIOL 352L Human Physiology Laboratory 1 Credit
In-depth study of human function. Physiology of major human body systems will be studied at the cellular, tissue, and systemic levels, emphasizing homeostatic mechanisms and integrative function.
Prerequisites: BIOL 105 or BIOL 209.
Corequisites: BIOL 352.
Terms Typically Offered: Spring.
Fees: Yes.

BIOL 371L Laboratory Investigations in Cellular and Molecular Biology 3 Credits
Laboratory exercises and experiments that highlight important topics in cellular and molecular biology. The mechanics of laboratory science are introduced with an emphasis on modern techniques, hypothesis development, data analysis, and scientific communication.
Prerequisites: BIOL 301/BIOL 301L and CHEM 132/CHEM 132L.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

BIOL 385 Nature and Philosophy of Science 3 Credits
Central concepts on the nature of scientific knowledge, including philosophical tenets that distinguish science from technology and from pseudoscience.
Terms Typically Offered: Spring.

BIOL 387 Structured Research 1-4 Credits
Independent research beyond the scope of the published curriculum. Designed for advanced sophomore and junior level students to participate in research activities under the direction of a specific faculty member.
Prerequisites: Sophomore or junior standing, or permission of instructor. Course may be taken multiple times up to maximum of 6 credit hours.
Fees: Yes.

BIOL 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

BIOL 396 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

BIOL 403 Evolution 3 Credits
Exploration of current and classical ideas in evolutionary biology. Emphasis on the phylogenetic structure of biological organization, evolution of major biological innovations in the context of geologic time, how evolutionary forces influence the genetic composition of populations, and the interactions between developmental, molecular, and evolutionary biology.
Prerequisites: BIOL 208/BIOL 208L and BIOL 301/BIOL 301L.
Terms Typically Offered: Fall.

BIOL 405 Advanced Ecological Methods 3 Credits
Quantitative methods in population, community, and ecosystems ecology.
Prerequisites: BIOL 105/BIOL 105L; and BIOL 106/BIOL 106L and BIOL 107/BIOL 107L, or BIOL 108/BIOL 108L.
Corequisites: BIOL 405L.
Terms Typically Offered: Spring.

BIOL 405L Advanced Ecological Methods Laboratory 2 Credits
Quantitative methods in population, community, and ecosystems ecology.
Prerequisites: BIOL 105/BIOL 105L; and BIOL 106/BIOL 106L and BIOL 107/BIOL 107L, or BIOL 108/BIOL 108L.
Corequisites: BIOL 405.
Terms Typically Offered: Spring.
Fees: Yes.

BIOL 406 Plant-Animal Interactions 3 Credits
Ecological, evolutionary, and applied approaches to the studies of herbivory, ant-plant interactions, pollination, and seed dispersal.
Prerequisites: BIOL 105/BIOL 105L; BIOL 106/BIOL 106L, BIOL 107/BIOL 107L, or BIOL 108/BIOL 108L; and BIOL 208/BIOL 208L.
Terms Typically Offered: Spring.

BIOL 407 Tropical Field Biology 3-5 Credits
Field research techniques, ecology, and natural history in tropical ecosystems. Conducted at international field locations.
Prerequisites: BIOL 105/BIOL 105L; and BIOL 106/BIOL 106L and BIOL 107/BIOL 107L, or BIOL 108/BIOL 108L; and BIOL 208/BIOL 208L.
Terms Typically Offered: Summer.

BIOL 408 Desert Ecology 3 Credits
Overview of desert ecology in the surrounding area and in the United States. Covers ecology of U.S. deserts, including specific plant, animal, and human adaptations. Discussion on world deserts. Field trips may be offered.
Prerequisites: BIOL 208/BIOL 208L, and junior or senior standing.
Terms Typically Offered: Spring.

BIOL 409 Gross Human Anatomy 2 Credits
Gross anatomy and cross-sectional anatomy of the human body via lectures, demonstrations, and dissections of the human cadaver.
Prerequisites: BIOL 209/BIOL 209L.
Corequisites: BIOL 409L.
Terms Typically Offered: Fall, Spring.

BIOL 409L Gross Human Anatomy Laboratory 2 Credits
Gross anatomy and cross-sectional anatomy of the human body via lectures, demonstrations, and dissections of the human cadaver.
Prerequisites: BIOL 209/BIOL 209L.
Corequisites: BIOL 409.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

BIOL 410 Human Osteology 3 Credits
Study of the human skeleton, including osteology and bone detail, biological variation, animal skeletal comparisons, pathology, forensics, and proper handling, analysis, and identification of human skeletal material.
Prerequisites: BIOL 209/BIOL 209L.
Corequisites: BIOL 410L.
Terms Typically Offered: Spring.

BIOL 410L Human Osteology Laboratory 1 Credit
Study of the human skeleton, including osteology and bone detail, biological variation, animal skeletal comparisons, pathology, forensics, and proper handling, analysis, and identification of human skeletal material.
Prerequisites: BIOL 209/BIOL 209L.
Corequisites: BIOL 410.
Terms Typically Offered: Spring.
Fees: Yes.

BIOL 411 Mammalogy 3 Credits
Evolution, classification, life histories, and ecology of mammals.
Prerequisites: BIOL 106/BIOL 106L or BIOL 108/BIOL 108L; and BIOL 208/BIOL 208L.
Corequisites: BIOL 411L.
Terms Typically Offered: Spring.

BIOL 411L Mammalogy Laboratory 1 Credit
Evolution, classification, life histories, and ecology of mammals.
Prerequisites: BIOL 106/BIOL 106L or BIOL 108/BIOL 108L; and BIOL 208/BIOL 208L.
Corequisites: BIOL 411.
Terms Typically Offered: Spring.
Fees: Yes.

BIOL 412 Ornithology 3 Credits
Classification and life history of birds, including field identification. Overnight and/or weekend field trips may be required. Three lectures and one two-hour laboratory or three-hour field trip per week.
Prerequisites: BIOL 208/BIOL 208L, and upper division standing or permission of instructor.
Corequisites: BIOL 412L.

BIOL 412L Ornithology Laboratory 1 Credit
Lab component required for BIOL 412.
Prerequisites: BIOL 208/BIOL 208L, and upper division standing or permission of instructor.
Corequisites: BIOL 412.
Fees: Yes.

BIOL 413 Herpetology 3 Credits
Introduction to the biology of amphibians and reptiles, focusing on their evolution, physiology, ecology, and natural history. Lab emphasizes identification of local species, field techniques, and skills in the scientific method, data interpretation, and critical thinking.
Prerequisites: BIOL 208/BIOL 208L, and upper division standing.
Corequisites: BIOL 413L.
Terms Typically Offered: Spring.

BIOL 413L Herpetology Laboratory 1 Credit
Introduction to the biology of amphibians and reptiles, focusing on their evolution, physiology, ecology, and natural history. Lab emphasizes identification of local species, field techniques, and skills in the scientific method, data interpretation, and critical thinking.
Prerequisites: BIOL 208/BIOL 208L, and upper division standing.
Corequisites: BIOL 413.
Terms Typically Offered: Spring.
Fees: Yes.

BIOL 414 Freshwater Ecology 3 Credits
Study of freshwater ecosystems, including physiography, biogeochemistry, and ecology.
Prerequisites: BIOL 208/BIOL 208L.
Corequisites: BIOL 414L.
Terms Typically Offered: Fall.

BIOL 414L Freshwater Ecology Laboratory 1 Credit
Study of freshwater ecosystems, including physiography, biogeochemistry, and ecology.
Prerequisites: BIOL 208/BIOL 208L.
Corequisites: BIOL 414.
Terms Typically Offered: Fall.
Fees: Yes.

BIOL 415 Tropical Ecosystems 2 Credits
Ecology of rainforests, grasslands, and desert ecosystems of the world.
Prerequisites: BIOL 105/BIOL 105L, and BIOL 106/BIOL 106L or BIOL 107/BIOL 107L, or BIOL 108/BIOL 108L, and BIOL 208/BIOL 208L.
Terms Typically Offered: Spring.

BIOL 418 Wildlife Management 3 Credits
Principles and practices of wildlife science and management. Topics addressed include: population dynamics, game species management and harvest, non-game species conservation and management, habitat management, policies and regulations, and socioeconomics.
Prerequisites: BIOL 208/BIOL 208L.
Corequisites: BIOL 418L.
Terms Typically Offered: Fall.

BIOL 418L Wildlife Management Laboratory 2 Credits
Principles and practices of wildlife science and management. Topics addressed include: population dynamics, game species management and harvest, non-game species conservation and management, habitat management, policies and regulations, and socioeconomics.
Prerequisites: BIOL 208/BIOL 208L.
Corequisites: BIOL 418.
Terms Typically Offered: Fall.
Fees: Yes.

BIOL 419 Fisheries Management 3 Credits
Principles and practices of fisheries science and management. Topics addressed include population dynamics, sport fish management and harvest, native species conservation and management, habitat management, policies and regulations, and socioeconomics.
Prerequisites: Junior or senior standing.
Corequisites: BIOL 419L.
Terms Typically Offered: Spring.

BIOL 419L Fisheries Management Laboratory 1 Credit
Principles and practices of fisheries science and management. Topics addressed include population dynamics, sport fish management and harvest, native species conservation and management, habitat management, policies and regulations, and socioeconomics.
Prerequisites: Junior or senior standing.
Corequisites: BIOL 419.
Terms Typically Offered: Spring.

BIOL 420 Conservation Biology 3 Credits
Study of the biodiversity conservation including ethics, economics, threats, extinction, protected areas and restoration ecology.
Prerequisites: BIOL 208.
Terms Typically Offered: Fall.

BIOL 425 Molecular Genetics 3 Credits
Nature and expression of genetic information at the molecular level in prokaryotic and eukaryotic organisms.
Prerequisites: BIOL 301/BIOL 301L.
Terms Typically Offered: Spring.

BIOL 427 Plant Anatomy and Physiology 3 Credits
Form, variability, and structure of the tissues comprising the body of vascular plants. Plant-water relationships, plant mineral nutrition, photosynthesis, red and blue light responses, plant hormones, and how plant growth and development at the molecular and cellular levels accounts for growth at the organismal level.
Prerequisites: BIOL 107/BIOL 107L; and CHEM 111 or CHEM 131/CHEM 131L.
Corequisites: BIOL 427L.
Terms Typically Offered: Fall.

BIOL 427L Plant Anatomy and Physiology Laboratory 2 Credits
Form, variability, and structure of the tissues comprising the body of vascular plants. Plant-water relationships, plant mineral nutrition, photosynthesis, red and blue light responses, plant hormones, and how plant growth and development at the molecular and cellular levels accounts for growth at the organismal level.
Prerequisites: BIOL 107/BIOL 107L; and CHEM 111 or CHEM 131/CHEM 131L.
Corequisites: BIOL 427.
Terms Typically Offered: Fall.
Fees: Yes.

BIOL 431 Animal Parasitology 3 Credits
Common and important parasites of domestic animals and man. Ecology, epidemiology, diagnosis, and control are discussed, with examples from the Protozoa, Trematoda, Cestoda, Nematoda, and Arthropoda.
Corequisites: BIOL 431L.
Terms Typically Offered: Fall.

BIOL 431L Animal Parasitology Laboratory 1 Credit
Common and important parasites of domestic animals and man. Ecology, epidemiology, diagnosis, and control are discussed, with examples from the Protozoa, Trematoda, Cestoda, Nematoda, and Arthropoda.
Corequisites: BIOL 431.
Terms Typically Offered: Fall.
Fees: Yes.

BIOL 441 Endocrinology 3 Credits
Anatomy and physiology of the endocrine system of vertebrates, including hormone function at a range of biological levels, from molecular to whole organism.
Prerequisites: BIOL 105/BIOL 105L, CHEM 132/CHEM 132L, and junior or senior standing.
Terms Typically Offered: Fall.

BIOL 442 Pharmacology 3 Credits
Principles underlying absorption, distribution, metabolism, and excretion of drugs, with emphasis on mechanisms of action and physiological responses.
Prerequisites: BIOL 209/BIOL 209L, one year of chemistry, and junior or senior standing.
Terms Typically Offered: Spring.

BIOL 450 Mycology 3 Credits
Identification and classification of local fungal and fungus-like species. Study of key morphological, physiological, and ecological traits across major phyla, with emphasis on their roles in industry, agriculture, and medicine.
Prerequisites: BIOL 107/BIOL 107L.
Corequisites: BIOL 450L.
Terms Typically Offered: Fall.

BIOL 450L Mycology Laboratory 2 Credits
Identification and classification of local fungal and fungus-like species. Study of key morphological, physiological, and ecological traits across major phyla, with emphasis on their roles in industry, agriculture, and medicine.
Prerequisites: BIOL 107/BIOL 107L.
Corequisites: BIOL 450.
Terms Typically Offered: Fall.
Fees: Yes.

BIOL 482 Senior Research 2 Credits
Designed to introduce students to appropriate procedures for conducting literature reviews, designing experiments, collecting and analyzing data, and preparing written and oral presentations of such experiments. Two lectures per week or equivalent.
Prerequisites: Senior standing, 2.80 GPA, and permission of instructor.

BIOL 483 Senior Thesis 2 Credits
In-depth thesis elaborating on major conceptual issues in biology. Students will integrate primary literature into a logical, conceptual, and synthetic framework.
Prerequisites: Senior standing.
Terms Typically Offered: Fall, Spring.

BIOL 487 Advanced Research 1-3 Credits
Provides students with an individualized research experience on a topic approved and directed by a specific faculty member. A detailed report in the form of a scientific journal article must be provided to the instructor.
Prerequisites: BIOL 482 or permission of instructor; BIOL 387 is highly recommended.
Course may be taken multiple times up to maximum of 6 credit hours.
Fees: Yes.

BIOL 493 Lab Teaching Practicum 1 Credit
Assist in laboratory teaching to support instruction and enhance student learning.
Prerequisites: Junior or senior standing or permission of instructor. Must have taken the course to be supported or have sufficient experience in other related courses.
Course may be taken multiple times up to maximum of 3 credit hours.

BIOL 494 Seminar 1 Credit
Current problems, topics, and research procedures in biological sciences and medicine. Topics announced each semester.
Prerequisites: Sophomore standing and permission of instructor.
Course may be taken 5 times for credit.

BIOL 495 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

BIOL 496 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

BIOL 498 Honors Thesis 3 Credits

BIOL 499 Internship 1-10 Credits
Work experience obtained on a job where assignments are primarily biological projects. The amount of credit awarded is determined by the school based on the nature of the assignment.
Prerequisites: Biology major, senior standing with either a 2.80 GPA in major courses, completion of BIOL 482, or permission of instructor.
Course may be taken multiple times up to maximum of 15 credit hours.

BIOL 507 Tropical Field Biology 5 Credits
Field research techniques, ecology and natural history in lowland and montane tropical rainforests of Ecuador. Ten nine-hour labs and fifteen two-hour lectures conducted at biological field stations in Ecuador.
Prerequisites: Undergraduate degree in biology or undergraduate degree in another field with primary or secondary teaching experience in science, and permission of instructor.

BIOL 533 Marine Invertebrate Communities 3 Credits
Techniques of collection and laboratory examination of marine invertebrates from intertidal and subtidal habitats. Design and execution of a research project and a written paper are required. Seven eight-hour labs and seven two-hour lectures will be conducted at a marine biological research station.
Prerequisites: Undergraduate degree in biology or a related field and permission of instructor.

BIOL 596 Topics: 1-5 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Business (BUGB)

Courses

BUGB 101 Introduction to Business 3 Credits
American business system operations in the economy, business functions, and interrelations between the businessperson and their environment.
Prerequisites: Can be taken for credit only by students who have completed fewer than 15 credit hours of BUGB, ACCT, HMGT, MANG, MARK, OFAD, CISB, or FINA courses.
Terms Typically Offered: Fall, Spring, Summer.

BUGB 101A Introduction to Business: Part 1 of 3 1 Credit
Introduction to management, supervision, motivation, supervision and the processes of recruiting personnel in the workplace.

BUGB 101B Introduction to Business: Part 2 of 3 1 Credit
Introduction to marketing, pricing, quality customer service, social responsibility and ethics in the workplace.

BUGB 101C Introduction to Business: Part 3 of 3 1 Credit
Introduction to financial statements, financial management, and budgeting in the workplace.

BUGB 105 Freshman Business Seminar 3 Credits
Overview of the Colorado Mesa University Business Department for prospective majors. Operational strategies and teamwork are developed via cases and projects. Students will gain exposure to all functional business areas through readings, discussions, and presentations. Cannot be taken for credit by students who have completed more than 15 credit hours of business courses.

BUGB 141 Business Mathematics 3 Credits
Fundamental review of whole numbers, decimals, and fractions. Emphasis is placed on percentage applications to solving various business problems in the areas of buying and selling merchandise, inventory computations, interest computations on notes and savings, consumer credit and installment computation, home mortgage loans, and business depreciation computations.

BUGB 196 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

BUGB 211 Business Communications 3 Credits
Development of a non-defensive, supportive, communication system effectively applied to interpersonal and written transactions within the business organization.
Prerequisites: ENGL 111.

BUGB 211A Business Communications: Part 1 of 3 1 Credit
Introduction to business communications, planning and writing messages and reports.

BUGB 211B Business Communications: Part 2 of 3 1 Credit
Introduction to effective communications in business, including presentations and routine, negative and persuasive messages.

BUGB 211C Business Communications: Part 3 of 3 1 Credit
Introduction to the roles of personal styles, cultures and teams in business communications.

BUGB 221 Insurance 3 Credits
Common types of protection offered by insurance, including fire, theft, comprehensive, life, automobile, accident, and health. Emphasis on application of insurance to individuals and small business firms.

BUGB 231 Survey of Business Law 3 Credits
Application of law as it applies to individuals and businesses, including foundations of the American legal system, legal entities and government regulations, property law, contracts and sales, negotiable instruments, agency and employment law, torts, labor law, international business law, and the social environment of business.
Terms Typically Offered: Fall, Spring.

BUGB 249 Personal Finance: The Business of Life 3 Credits
Development of financial and economic literacy to improve personal decision making in the areas of: personal budgeting; developing a personal financial plan including consumer credit, taxes and purchasing a home; money and interest rates; the market economy; free enterprise and competition; and the consequences of externalities, public goods and increasing costs in the service sector.

BUGB 293 Cooperative Education 3-6 Credits
Practical workplace experience under the joint supervision of the employer and the internship coordinator. Designed for non-business majors working in the business environment.
Course may be taken multiple times up to maximum of 15 credit hours.

BUGB 300 Essential Excel Skills for Business 1 Credit
Exploration of higher-level tools and skills in Excel for the business professional. Builds proficiency in Excel for effective decision-making by using various formulas, functions, tables, and tools to efficiently manipulate data, perform calculations, create charts, and manage spreadsheets. Credit can be earned only once in either BUGB 300 or CISB 305.
Terms Typically Offered: Fall, Spring.

BUGB 351 Business Law I 3 Credits
Law and legal reasoning. Court systems, constitutional law, business ethics, torts, criminal law, intellectual property, privacy, internet and cyber law. Contracts, sales, product liability, and agency and employment law.

BUGB 352 Business Law II 3 Credits
Introduction to business entities, including: formation, financing, and regulation. Securities law and corporate governance; negotiable instruments; creditors' rights and bankruptcy; and administrative, consumer, and environmental law. Real and personal property; insurance; wills and trusts; and professional liability.
Prerequisites: BUGB 351.
Terms Typically Offered: Spring.

BUGB 393 Cooperative Education 3-9 Credits
Cooperative Education internships provide non-business students an opportunity to put their education to practical use in the workplace under the joint supervision of an organization-based supervisor and a Colorado Mesa University faculty coordinator. Written consent of coordinator required prior to registration.
Course may be taken multiple times up to maximum of 15 credit hours.

BUGB 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

BUGB 396 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

BUGB 401 International Business 3 Credits
Current international topics in the disciplines of finance, management, and marketing. Concepts, analytical tools, and models are introduced to help explain the diversity and complexity of the international business environment.
Prerequisites: Senior standing.

BUGB 405 Big Questions in Business 3 Credits
Application of the requisite business skill of critical thinking as it pertains to major issues in business.
Prerequisites: Senior standing.

BUGB 435 Emerging Markets 3 Credits
Traditional challenges to global product development and marketing in the world's emerging economies. Commonalities of differing regions and economic systems. Cultural and economic differences. A macro look at emerging economies. Micro applications of new emerging world markets.
Prerequisites: Business Foundation Courses.

BUGB 440 Business Ethics 3 Credits
Examination of the nature and role of ethics in the business environment.

BUGB 441 Application of Corporate Social Responsibility 3 Credits
Exploration of the dynamic landscape of Corporate Social Responsibility (CSR) in the modern business world. Delve into the strategic applications of CSR, gaining the knowledge and tools to drive organizational success while positively impacting society and the environment.
Prerequisites: Junior or Senior standing.
Terms Typically Offered: Spring.

BUGB 493 Cooperative Education 3-12 Credits
See description of BUGB 393.
Course may be taken multiple times up to maximum of 15 credit hours.

BUGB 495 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

BUGB 496 Topics 1-6 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

BUGB 500 Advanced Business Law and Ethics 3 Credits
Emphasizes the regulations, statutes and cases that impact business on a daily basis. Topics covered include contract law, negotiations, labor law, the Uniform Commercial Code, and the law of business organizations to include limited liability companies.

BUGB 510 Global Business 3 Credits
Explores international management concepts and procedures and their importance to modern managers. Operating in multi-national, multi-cultural managerial environment, the modern manager must understand business and management from a global perspective. Emphasis is placed on comparing and contrasting management practices in different nation-states and how this might affect decisions concerning risk, investment, human resources, finances, operations, manufacturing and production in a multi-national business.

BUGB 520 Seminar in Current Business Topics 1-6 Credits
Develops topics of current interest in the business world. Areas included are effective communication strategies, ethics, and the global dimension of business.
Course may be taken 4 times for credit.

BUGB 530 Research Design 3 Credits
Examines the design of research projects. Topics will include selection of the problem, secondary data, historical research, descriptive research, experimental research, the tools of research, and interpretation of data.
Prerequisites: Permission of instructor and permission of MBA Director.

BUGB 575 Healthcare Systems 3 Credits
Examination of healthcare systems, their history, and their evolution. Comparison of U.S. healthcare systems to those of other countries and exploration of the concept of population health and the American consumer.
Prerequisites: Enrolled in MBA Healthcare Administration Track.
Terms Typically Offered: Spring, Summer.

BUGB 576 Healthcare by the Numbers 3 Credits
Practical knowledge of healthcare finance, budgeting, and reimbursement models for non-financial healthcare managers. Application of this information in executive decision-making.
Prerequisites: Enrolled in MBA Healthcare Administration Track.
Terms Typically Offered: Fall, Summer.

BUGB 577 Managing Qualitative Issues in Healthcare Organizations 3 Credits
Management of qualitative issues in healthcare organizations. Topics include: past and future trends in providers' programs and information systems; elements of ethical compliance and governing processes; quality improvement through support of compliance processes and procedures; risk identification and mitigation strategies; and application of the SWOT (Strength-Weaknesses-Opportunities-and-Threats) approach to review quality and risk issues.
Prerequisites: Enrolled in MBA Healthcare Administration Track.
Terms Typically Offered: Fall, Spring.

BUGB 590 MBA Thesis I 3 Credits
Prerequisites: Completion of approved research design and methods course and permission of MBA Director.

BUGB 592 MBA Thesis II 3 Credits

BUGB 593 Capstone 3 Credits
Development of a comprehensive project that demonstrates the ability to identify, scope, and research a business-related issue and provide plausible recommendations.
Prerequisites: ACCT 500, BUGB 500, CISB 501, ECON 530, MANG 501, FINA 500, MARK 500, and permission of the instructor and MBA Director.
Corequisites: MANG 590.
Terms Typically Offered: Spring.

BUGB 595 Research Practicum 3 Credits
Application of classroom theory and research methods to on-the-job experiences.
Prerequisites: BUGB 530 and permission of the MBA Director.
Course may be taken multiple times up to maximum of 6 credit hours.

BUGB 596 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

BUGB 599 Internship 3 Credits
Intern within an organization engaged in various strategic management functions.
Prerequisites: MBA major; written permission of MBA advisor and MBA Coordinator prior to registration.
Terms Typically Offered: Fall, Spring, Summer.

Chemistry (CHEM)

Courses

CHEM 100 Chemistry and Society-GTSC2 3 Credits
Introduction to selected topics in chemistry with particular attention to chemistry in society. Minimal use of elementary mathematics is required.
Essential Learning Categories: Natural Sciences
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum

CHEM 111 Introduction to Concepts of General Chemistry 3 Credits
Introduction to concepts of General Chemistry. Designed as a preparatory course for CHEM 131. Topics include dimensional analysis, review of relevant algebra skills, basic atomic structure, molecular structure and shape, nomenclature, and stoichiometry.
Essential Learning Categories: Natural Sciences
Terms Typically Offered: Fall, Spring.

CHEM 121 Principles of Chemistry-GTSC1 4 Credits
Introduction to fundamental principles of chemistry. Designed for students planning a non-science major. Topics include atomic structure, bonding, periodic table, gas laws, mass relationships, solution theory, oxidation-reduction, electrochemistry, and ionic equilibrium. Four lectures and one three-hour lab per week.
Prerequisites: Mastery of high school algebra.
Corequisites: CHEM 121L.
Essential Learning Categories: Natural Science with lab - Both the lab and lecture must be completed
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

CHEM 121L Principles of Chemistry Laboratory-GTSC1 1 Credit
Lab component required for CHEM 121.
Prerequisites: Mastery of high school algebra.
Corequisites: CHEM 121
Essential Learning Categories: Natural Science with lab - Both the lab and lecture must be completed
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Fees: Yes.

CHEM 122 Principles of Organic Chemistry-GTSC1 4 Credits
Introduction to the chemical and physical properties of selected classes of organic compounds. Four lectures and one three-hour laboratory per week.
Prerequisites: CHEM 121/CHEM 121L or CHEM 131/CHEM 131L or one year of high school chemistry and permission of instructor.
Corequisites: CHEM 122L.
Essential Learning Categories: Natural Science with lab - Both the lab and lecture must be completed
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum

CHEM 122L Principles of Organic Chemistry Laboratory-GTSC1 1 Credit
Lab component required for CHEM 122.
Prerequisites: CHEM 121/CHEM 121L or CHEM 131/CHEM 131L or one year of high school chemistry and permission of instructor.
Corequisites: CHEM 122.
Essential Learning Categories: Natural Science with lab - Both the lab and lecture must be completed
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum

CHEM 123 Introduction to Environmental Chemistry 4 Credits
Application of basic chemistry principles to the environment. Topics include aquatic and atmospheric chemistry, biogeochemical cycling of the elements required for life and structural organic chemistry as it applies to the physical and biological properties of persistent organic pollutants.
Prerequisites: CHEM 131/CHEM 131L.
Terms Typically Offered: Spring.

CHEM 131 General Chemistry I-GTSC1 4 Credits
Fundamental principles of chemistry. Designed for students planning a major in science. Topics include dimensional analysis, atomic and molecular structure, stoichiometry, simple chemical reactions, thermochemistry, and gases.
Prerequisites: One year of high school chemistry, mastery of algebra, and a passing score on the chemistry assessment exam; Students without an appropriate chemistry assessment exam score should take CHEM 111; CHEM 111 or CHEM 121 may be substituted for an appropriate assessment score.
Corequisites: CHEM 131L.
Essential Learning Categories: Natural Science with lab - Both the lab and lecture must be completed
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

CHEM 131L General Chemistry Laboratory I-GTSC1 1 Credit
Fundamental principles of chemistry. Designed for students planning a major in science. Topics include dimensional analysis, atomic and molecular structure, stoichiometry, simple chemical reactions, thermochemistry, and gases.
Prerequisites: One year of high school chemistry, mastery of algebra, and a passing score on the chemistry assessment exam; Students without an appropriate chemistry assessment exam score should take CHEM 111; CHEM 111 or CHEM 121 may be substituted for an appropriate assessment score.
Corequisites: CHEM 131.
Essential Learning Categories: Natural Science with lab - Both the lab and lecture must be completed
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.
Fees: Yes.

CHEM 132 General Chemistry II-GTSC1 4 Credits
Continuation of the material in CHEM 131. Topics include states of matter, solutions, kinetics, equilibrium, thermodynamics, and electrochemistry.
Prerequisites: CHEM 131/CHEM 131L or CHEM 151/CHEM 151L.
Corequisites: CHEM 132L.
Essential Learning Categories: Natural Science with lab - Both the lab and lecture must be completed
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum

CHEM 132L General Chemistry Laboratory II-GTSC1 1 Credit
Laboratory course to accompany CHEM 132. Designed for students planning a major in science. Freshman-level chemistry laboratory techniques will continue to be introduced. Experimental topics include: identification of chemical unknowns by qualitative analysis, colligative properties, acid-base titration, reaction kinetics, equilibrium constant determinations, and electrochemistry. Four lectures and one three-hour laboratory per week.
Prerequisites: CHEM 131/CHEM 131L or CHEM 151/CHEM 151L.
Corequisites: CHEM 132.
Essential Learning Categories: Natural Science with lab - Both the lab and lecture must be completed
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Fees: Yes.

CHEM 151 Engineering Chemistry-GTSC1 4 Credits
General chemistry for engineering majors. Topics include stoichiometry, thermodynamics, states of matter, acids and bases, oxidation-reduction, equilibrium, and kinetics. Examples and problems chosen to illustrate the application of chemistry to engineering.
Prerequisites: MATH 113 or higher or concurrently enrolled in MATH 119, MATH 119B, MATH 135, or MATH 151; CHEM 111 or a passing score on the chemistry placement exam.
Corequisites: CHEM 151L.
Essential Learning Categories: Natural Science with lab - Both the lab and lecture must be completed
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

CHEM 151L Engineering Chemistry Laboratory-GTSC1 1 Credit
Laboratory course to accompany CHEM 151. Freshman-level chemistry laboratory techniques will be introduced. Experimental topics include basic measurement techniques, stoichiometry, chemical reaction observation, titrations, and reaction kinetics.
Prerequisites: MATH 113 or concurrently enrolled in MATH 119, MATH 119B, MATH 135, or MATH 151; CHEM 111 or passing score on the chemistry assessment exam.
Corequisites: CHEM 151.
Essential Learning Categories: Natural Science with lab - Both the lab and lecture must be completed
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.
Fees: Yes.

CHEM 196 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

CHEM 296 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

CHEM 300 Environmental Chemistry 4 Credits
Aquatic and atmospheric chemistry. Basic chemical, physical and biological properties of organic pollutants. Topics include smog formation, stratospheric ozone depletion, greenhouse gases, acid mine waste formation, biogeochemistry, and bioaccumulation of halogenated organics.
Prerequisites: CHEM 122/CHEM 122L or CHEM 132/CHEM 132L.

CHEM 301 Analytical Chemistry 3 Credits
Classical and instrumental methods of quantitative chemical analysis. Includes statistical treatment of experimental data, method characterization and validation, equilibrium, titrations, electrochemistry, spectroscopy, mass spectrometry, and chromatography.
Prerequisites: CHEM 132/CHEM 132L.
Corequisites: CHEM 301L.

CHEM 301L Analytical Chemistry Laboratory 1 Credit
Lab component required for CHEM 301.
Prerequisites: CHEM 132/CHEM 132L.
Corequisites: CHEM 301.
Fees: Yes.

CHEM 311 Organic Chemistry I 4 Credits
This course is the first semester of a two-semester introduction to basic organic chemistry. The nomenclature, structure, properties, and reactions of important classes of organic compounds are examined. The relationship of structure and bonding in organic compounds to reactivity is emphasized. Reactions are examined from mechanistic and synthetic perspectives.
Prerequisites: CHEM 132/CHEM 132L.
Corequisites: CHEM 311L.

CHEM 311L Organic Chemistry I Laboratory 1 Credit
This lab is the first semester of a two-semester sequence. It introduces common organic lab techniques (including chromatography, extraction, recrystallization, and distillation) used for separating and analyzing organic compounds.
Prerequisites: CHEM 132/CHEM 132L.
Corequisites: CHEM 311.
Fees: Yes.

CHEM 312 Organic Chemistry II 4 Credits
This course is the second semester of a two-semester introduction to basic organic chemistry. The nomenclature, structure, properties, and reactions of important classes of organic compounds are examined. The relationship of structure and bonding in organic compounds to reactivity is emphasized. Reactions are examined from mechanistic and synthetic perspectives. Spectroscopic analysis of organic compounds is also introduced.
Prerequisites: CHEM 132/CHEM 132L or permission of instructor.
Corequisites: CHEM 312L.

CHEM 312L Organic Chemistry II Laboratory 1 Credit
This lab is the second semester of a two-semester sequence. Common organic lab techniques, including spectroscopy, are used to carry out and analyze organic reactions.
Prerequisites: CHEM 132/CHEM 132L or permission of instructor.
Corequisites: CHEM 312.
Fees: Yes.

CHEM 315 Biochemistry I 3 Credits
Classical biochemistry concerned with the application of chemical principles to biological systems. Topics covered include: organic reactions in living cells, thermodynamics, water, acids and bases, and structural-functional relationships of carbohydrate, lipid, protein, and nucleic acid monomers and polymers.
Prerequisites: CHEM 312/CHEM 312L.
Terms Typically Offered: Fall.

CHEM 316 Biochemistry II 3 Credits
Continuation of fundamental biochemical principles, focused upon metabolism. Topics include: intersection of reciprocal regulation of catabolism and anabolism, citric acid cycle, oxidative phosphorylation, and intersections of carbohydrate, amino acid, nucleotide, and lipid metabolism.
Prerequisites: CHEM 315.
Terms Typically Offered: Spring.

CHEM 317L Biochemistry Laboratory 1 Credit
Laboratory investigation of fundamental applications of biochemistry. Techniques focus upon industrially-relevant purification and characterization of functional biomolecules and biomacromolecules.
Prerequisites: CHEM 315 (may be taken concurrently); CHEM 312/CHEM 312L; and BIOL 105/BIOL 105L.
Terms Typically Offered: Fall.

CHEM 321 Physical Chemistry I 3 Credits
Principles of chemical thermodynamics and kinetics. Includes study of the kinetic theory of matter, first and second laws of thermodynamics, state functions, thermochemistry, entropy, free energy, chemic potential, phase transitions, chemical equilibria, and the rates and mechanisms of chemical reactions.
Prerequisites: CHEM 132/CHEM 132L or CHEM 151/CHEM 151L; and MATH 152; and PHYS 111/PHYS 111L or PHYS 131/PHYS 131L.

CHEM 322 Physical Chemistry II 3 Credits
An introduction to the quantum theory of atoms, molecules, and chemical bonding for chemists. Includes principles of quantum mechanics and their application to atomic structure, molecular spectroscopy, symmetry properties, and the determination of molecular structure. Also introduces the principles of statistical mechanics with application to molecules.
Prerequisites: CHEM 132/CHEM 132L or CHEM 151/CHEM 151L; and MATH 253 (may be taken concurrently); and PHYS 111/PHYS 111L or PHYS 131/PHYS 131L.

CHEM 341 Advanced Laboratory I 2 Credits
Experiments from analytical, inorganic, organic, physical, and biological chemistry designed to show the application of theory to chemical problems. In addition to a list of possible core experiments, each student chooses other experiments according to individual interests. Two three-hour laboratories per week.
Prerequisites: CHEM 301/CHEM 301L; CHEM 312/CHEM 312L; and CHEM 321.
Corequisites: CHEM 442.
Fees: Yes.

CHEM 351 Inorganic Chemistry I 3 Credits
Study of periodic trends and bonding throughout the periodic table. Includes periodic properties, advanced electron-dot diagrams, VSEPR, symmetry, group theory, molecular orbital diagrams, electron counting, and basic nomenclature.
Prerequisites: CHEM 312 (may be taken concurrently).

CHEM 352 Inorganic Chemistry II 3 Credits
Application of periodic trends and high level bonding concepts to main group, solid state, organometallic, and advanced coordination chemistries. Includes acid-base chemistry, donor-acceptor chemistry, crystalline solids, ligand field stabilization energy, Jahn-Teller Effects, pi-bonding ligands, reaction pathways at transition metal centers, and catalysts.
Prerequisites: CHEM 351.

CHEM 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

CHEM 396 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

CHEM 397 Structured Research 1-3 Credits
Chemical research guided by a faculty member. Sophomore through senior levels.
Prerequisites: Permission of instructor.
Course may be taken multiple times up to maximum of 4 credit hours.

CHEM 421 Advanced Organic Chemistry I 3 Credits
Selected topics in organic chemistry are discussed in detail.
Prerequisites: CHEM 312 and CHEM 322.

CHEM 422 Advanced Organic Chemistry II 3 Credits
Similar in content to CHEM 421, but without overlap in topics. CHEM 421 is not a prerequisite for CHEM 422.
Prerequisites: CHEM 312 and CHEM 322.

CHEM 431 Instrumental Analysis 3 Credits
Modern instrumental methods of analysis. Topics include signals and noise, atomic spectroscopy, molecular spectroscopy, electroanalytical chemistry and chromatographic separation methods. Three lectures and one 3-hour laboratory per week.
Prerequisites: CHEM 301/CHEM 301L.
Corequisites: CHEM 431L.

CHEM 431L Instrumental Analysis Laboratory 1 Credit
Lab component required for CHEM 431.
Prerequisites: CHEM 301/CHEM 301L.
Corequisites: CHEM 431.
Fees: Yes.

CHEM 442 Communicating in the World of Chemistry 1 Credit
Study and application of communication skills necessary for careers in chemistry-related fields. Includes laboratory notebooks, chemical publications, cover letters, resumes, and formal oral presentations.
Corequisites: CHEM 341.

CHEM 487 Formal Research 1-3 Credits
Chemical research guided by a faculty member. Results presented as a formal scientific paper in a format suitable for publication. Topics include laboratory notebooks, independent research, and formal reporting of research.
Course may be taken multiple times up to maximum of 4 credit hours.

CHEM 494 Seminar 1 Credit
Student, faculty, and other speakers present a variety of topics in chemistry and related fields.
Prerequisites: Chemistry major with senior standing or permission of instructor.

CHEM 495 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

CHEM 496 Topics 3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

CHEM 497 Structured Research 1-3 Credits
Chemical research guided by a faculty member. Senior level.
Prerequisites: Permission of instructor.
Course may be taken multiple times up to maximum of 4 credit hours.

CHEM 596 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Civil Engineering (CIVE)

Courses

CIVE 127 Engineering Drawing for Civil Engineering 3 Credits
Introduction to civil and construction applications of AutoCAD Civil 3D and/or other similar civil engineering survey and design-oriented CAD applications. Students will learn basic construction plan reading skills.
Terms Typically Offered: Fall, Spring.

CIVE 212 Introduction to Geomatics 3 Credits
Introduction to basic techniques of surveying, including linear, angular, area, and volume field measurements and calculations, as well as GPS and GIS applications common to civil engineering.
Prerequisites: MATH 151 or MATH 135.
Terms Typically Offered: Fall, Spring.

CIVE 313 Theoretical Fluid Mechanics 3 Credits
Basic principles of fluid mechanics. Covers fluid properties, hydrostatics, and fluid flow concepts, including continuity, energy, momentum, dimensional analysis and similitude, as well as flow in closed conduits.
Prerequisites: ENGR 261.
Terms Typically Offered: Spring.

CIVE 387 Structured Research 1-3 Credits
Supervised research experience offering students the opportunity to conduct primary or secondary research under faculty guidance.
Prerequisites: Sophomore standing or higher.
Terms Typically Offered: Fall, Spring.
Course may be taken multiple times up to maximum of 6 credit hours.

Commercial Driver's License Training (CDLT)

Courses

CDLT 100 Commercial Driver's License Preparation 3 Credits
Preparation for students to pass the commercial driver's license test for an entry-level truck driving position as a Class “A” CDL driver. Includes basic and advanced operating practices, defensive driving, inspections, life skills, and essential activities such as trip planning, map reading, hours of service, cargo handling, and an employment workshop.
Prerequisites: Must hold a valid regular driver's license and be at least 18 years old before applying for a CDL.
Terms Typically Offered: Fall, Spring, Summer.

CDLT 101 Commercial Driver's License Training - Behind the Wheel 7 Credits
Practical driving experience (120 hours) and training relating to performing and passing pre-trip inspection testing, basic controls testing, and road skills testing.
Prerequisites: CDLT 100 (may be taken concurrently).
Terms Typically Offered: Fall, Spring, Summer.
Fees: Yes.

Computer Aided Drafting (CADT)

Courses

CADT 106 Computer Aided Design 3 Credits
Basic principles of computer-aided design through the development of practical drawing problems using a computer.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

CADT 108 CAD - Mechanical 3 Credits
Basic principles of computer-aided drafting and 3D modeling through the development of practical drawing problems using CAD software.
Terms Typically Offered: Fall.
Fees: Yes.

CADT 109 CAD-Mechanical Engineering 3 Credits
Advanced work in computer-aided drafting principles, including 2-D and 3-D drawing, solid-based modeling, and parametric modeling.
Terms Typically Offered: Spring.
Fees: Yes.

CADT 130 CAD-Civil 3 Credits
Basic principles of civil drafting, including organizing data, working with points, surfaces, parcel contours, grading, and pipe networks. Students will be introduced to graphical interface systems (GIS).
Prerequisites: CADT 106 (may be taken concurrently).
Terms Typically Offered: Fall.
Fees: Yes.

CADT 135 CAD Civil II 3 Credits
Advanced work in configuring software and customizing sheet properties. Explore alternative methods to create surfaces and parcels and advanced corridor and pipe network design and further instruction using skills from CADT 130.
Prerequisites: CADT 130.
Terms Typically Offered: Spring.
Fees: Yes.

CADT 140 Architectural Theory and Structural Materials 3 Credits
Elementary design strategies, theories, and methods for architectural documents. Application of architectural components and materials to develop buildable assemblies. Emphasis is placed on building codes and standards.
Corequisites: CADT 142.
Terms Typically Offered: Spring.
Fees: Yes.

CADT 142 CAD - Residential Architecture 3 Credits
Basic principles in residential architectural CAD through a realistic residential project, from concept through construction documents.
Corequisites: CADT 140.
Terms Typically Offered: Spring.
Fees: Yes.

CADT 143 CAD-Commercial Architecture 3 Credits
Creation of commercial project plans that begin with schematic design and continue through to construction documents. Construction documents will include site plan, foundation floor slab plan, roof framing plan, building section, and a variety of construction details.
Terms Typically Offered: Fall.
Fees: Yes.

CADT 195 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

CADT 196 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

CADT 210 Project 3 Credits
Exploration of computer-aided drawing, demonstrating learned concepts and principles of 3D parametric modeling to residential and commercial applications.
Prerequisites: CADT 106 and CADT 142 (both may be taken concurrently).
Terms Typically Offered: Spring.
Fees: Yes.

CADT 296 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Computer Information Systems (CISB)

Courses

CISB 101 Business Information Technology 3 Credits
Introduction to computing and software, including computing systems in a business environment and applicable software.

CISB 205 Advanced Business Software 3 Credits
Use of electronic spreadsheets and database management software. Lectures, demonstrations, and hands-on projects. Developing customized applications with macros in spreadsheets. Creating tables, reports, forms, and queries to creating appropriate relationships and developing customized database software applications.

CISB 206 Introduction to Business Application Programming 3 Credits
Beginning programming with emphasis on solving problems in the context of business applications.

CISB 210 Fundamentals of Information Systems 3 Credits
Exploration of information systems in a business environment. Use of information systems to improve business processes and organizational goals. Introduction to hardware, software, ethical issues, career opportunities, and organizational uses of information systems.

CISB 211 Introduction to Cybersecurity 3 Credits
Introduction to cybersecurity in a business environment. Topics include policy and governance, frameworks, risk and asset management, data loss prevention, access control management, and cybersecurity incident response.
Terms Typically Offered: Fall.

CISB 241 Introduction to Business Analysis 3 Credits
Introduction to descriptive, predictive, and inferential analysis techniques with business applications. Topics include summarizing data graphically and numerically; elementary probability; discrete and continuous probability distributions; sampling distributions; intervals and tests for one and two samples; correlation and regression; chi-squared tests; and one-way analysis of variance. Appropriate business and statistical software will be used.
Prerequisites: MATH 113 or higher.
Equivalent Course(s): STAT 241
Terms Typically Offered: Fall, Spring.

CISB 295 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

CISB 301 Digital Forensics 3 Credits
In-depth exploration of computer and digital forensics, with emphasis on advanced techniques for investigating cybersecurity incidents. Topics include: forensic principles applied to networks, hardware, operating systems, and mobile devices. The course emphasizes legal considerations, investigative methodologies, and the use of professional tools to conduct digital forensic analyses.
Terms Typically Offered: Spring.

CISB 305 Solving Problems Using Spreadsheets 3 Credits
Critical analysis and problem solving using tools in spreadsheets. Decision support utilizing spreadsheet tools covered by hands-on cases, book tutorials, and lecture materials. Structured problems, semi-structured problems, and what-if scenarios explored.
Terms Typically Offered: Fall.

CISB 306 Solving Problems Using Databases 3 Credits
For students who have minimal background in databases. Assists in understanding the importance of data management in organizations through hands-on experience in solving business problems using relational database management software.

CISB 309 Enterprise Systems 3 Credits
Theoretical and practical issues of enterprise systems within organizations. Demonstrates how enterprise systems integrate information and organizational processes across functional areas with a unified system comprised of a single database and shared reporting tools.
Prerequisites: CISB 210.

CISB 311 Fundamentals of Cloud Security 3 Credits
Introduction to cloud-based cybersecurity and related concepts. Topics include architectural concepts and design requirements, cloud data security, cloud platform and infrastructure security, cloud application security, and cloud computing legal compliance. Special application on applying learned principles to real world case studies.
Prerequisites: CISB 211.
Terms Typically Offered: Fall.

CISB 315 Information Systems Infrastructure 3 Credits
Information systems infrastructure, computer architecture and communications networks in an organizational context.
Prerequisites: CISB 210.

CISB 331 Advanced Business Programming 3 Credits
Procedural and object-oriented software engineering methodologies using modern business languages. Emphasis on data definition and measurement, record and file processing, report generation and other traditional business information systems applications using modern methods of top-down, structured design. Other concepts include developing screen editors, abstract data types, and data structures including sequential, random and indexed files.
Prerequisites: CISB 206 or CSCI 110.

CISB 341 Quantitative Decision Making 3 Credits
Application of inferential statistics to realistic business situations; use of quantitative tools to enhance business decision-making ability. Descriptive statistics for data summarization, probability theory, distributions, estimation, and index numbers with emphasis on hypothesis testing, analysis of variance, regression/correlation, time series, and introduction to operations research and linear programming.
Prerequisites: MATH 113 or higher, and CISB 241 or STAT 241.

CISB 342 Data Mining and Visualization 3 Credits
Application of data mining and visualization tools to business related data sets. Using a blend of data mining and visualization techniques, hands-on experience will be gained in discovering how data can inform the business decision-making process.
Prerequisites: CISB 205, CISB 241 or STAT 241, and CISB 341.
Terms Typically Offered: Fall.

CISB 343 Big Data Analytics 3 Credits
Analysis of large data sets for emergent patterns using modern software tools. Topics can include: NoSQL, cloud computing, and text mining tools.
Prerequisites: CISB 205, CISB 241 or STAT 241, and CISB 341.
Terms Typically Offered: Fall.

CISB 393 Cooperative Education 3-12 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

CISB 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

CISB 396 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

CISB 410 Project Management 3 Credits
Processes, techniques and tools of project management. Evaluating, initiating, planning, staffing, executing, controlling, and closing projects using project management software.
Prerequisites: CISB 210 is a prerequisite or corequisite if the student has reached junior status.

CISB 442 Systems Analysis and Design 3 Credits
Analysis and logical design of information systems. Practice in project management during team-oriented analysis and design of a departmental level system.
Prerequisites: CISB 210, CISB 309, CISB 315 (may be taken concurrently), CISB 410, and CISB 206 or CSCI 110 or CSCI 111, or permission of instructor.

CISB 451 Database Administration 3 Credits
Continuation of CISB 442 Systems Analysis and Design. Covers development and implementation of conceptual and detailed physical system design using proper database tools and methods.
Prerequisites: CISB 205, CISB 442, and ACCT 202.

CISB 460 Electronic Commerce Systems 3 Credits
Comprehensive examination of electronic commerce, how it is conducted and managed, and its opportunities, limitations, issues and risks. Coverage of technological infrastructure that supports e-commerce systems, plus the implications of such systems in the business environment. Exercises include exploration of e-commerce web sites and features, plus discussion and demonstration of state-of-the art e-commerce tools.
Prerequisites: CISB 210 or permission of instructor.

CISB 470 Management of Information Systems 3 Credits
Reviews the development of analyzing information use by organizations with different types of information systems. The conceptual foundations of information systems and the development, operation, management, uses, parties, control, structure, and impact of these systems will be addressed. Analysis and design of information systems is stressed through case study projects, emphasizing the role of computing in information systems and design of computer-based systems, expert systems, decision support systems and executive information systems.
Prerequisites: Junior or senior status.

CISB 471 Advanced Information Systems 3 Credits
Capstone course for the BS in CISB and the BAS in CISB. Integrates management information needs, decision-making criteria, and design of interactive user interfaces. Design and development of computerized management control systems for major functional modules of an organization will be investigated using database management systems, distributed processing, and structured systems development.
Prerequisites: CISB 210, CISB 331, CISB 410, CISB 442, CISB 451, and CISB 470.
Terms Typically Offered: Spring.

CISB 491 Directed Readings in Computer Information Systems 1-3 Credits
Study of a leading edge topic within Computer Information Systems under direction of CIS faculty. Prior to registering, the student must meet with the CIS instructor to determine a topic and a method for reporting. For each credit hour registered, the student will read and report on at least 200 pages of scholarly readings.
Prerequisites: CIS major, junior or senior status, and permission of instructor.

CISB 493 Cooperative Education 3-12 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

CISB 495 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

CISB 496 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

CISB 500 Management of Information Systems 3 Credits
Reviews the development of an overall framework for analyzing the use of information by organizations along with examples of different types of information systems. The conceptual foundations of information systems and the development, operation, management, uses, parties, control, structure, and impact of these systems will be addressed. The analysis and design of information systems is stressed through case study and projects, emphasizing the role of computing in information systems and design of computer-based systems, expert systems, decision support systems and executive information systems.

CISB 501 Business Analytics 3 Credits
Examination of quantitative decision making for managers. Descriptive and predictive analytical tools in a management context will be covered along with current topics in data science and data analytics.
Terms Typically Offered: Fall.

CISB 505 Advanced Project Management 3 Credits
Processes, techniques and tools of project management. Evaluating, initiating, planning, staffing, executing, controlling, and closing projects using project management software. Projects, writing, and presentation to demonstrate mastery at the graduate level.
Prerequisites: CISB 210 and permission of instructor.

CISB 560 Electronic Commerce Systems 3 Credits
A comprehensive examination of the modern paradigm of electronic commerce, how it is conducted and managed, and its major opportunities, limitations, issues, and risks. Coverage of technological infrastructures that support e-commerce systems, plus the implications of such systems in the business environment. Exercises will include exploration of e-commerce web sites and features, plus discussion and demonstration of state-of-the-art e-commerce tools.
Prerequisites: Graduate status at Colorado Mesa University.

Computer Science (CSCI)

Courses

CSCI 100 Computers In Our Society 3 Credits
Impact of computers on society and individuals; purpose and use of software integrated systems. Intended for students in disciplines outside the natural sciences and mathematics.
Essential Learning Categories: Social and Behavioral Sciences
Terms Typically Offered: Fall, Spring.

CSCI 104 Intro to Computer Hardware 1 Credit
Computer hardware introduction. Includes purchasing, maintenance, and repair of computer hardware, including desktops, laptops, servers and mobile devices, and wired and wireless network hardware in individual and corporate settings.
Terms Typically Offered: Spring.

CSCI 106 Web Page Design I 3 Credits
Aspects of web page design such as HTML, web servers, web graphics/sound/video, and programs that automate the design of web sites and scripts. Students will progressively develop their own sites throughout the term using software tools and concepts presented in the class.
Terms Typically Offered: Fall, Spring.

CSCI 110 Beginning Programming 3 Credits
Introduction to computer programming. Includes syntax and semantics for sequential, selection, and repetition structures, program design and modularization, simple and structured data types, and file I/O. Designed for students with no programming experience or majors outside of Computer Science.
Prerequisites: MATC 092 or MATH 110 or higher (may be taken concurrently).
Terms Typically Offered: Fall, Spring.

CSCI 110L Beginning Programming Laboratory 1 Credit
Optional laboratory course to be taken as a co-requisite to CSCI 110 to enhance knowledge of computer programming. Includes syntax and semantics for sequential, selection, and repetition structures, program design and modularization, simple and structured data types, and file I/O. Designed for students with no programming experience or majors outside of Computer Science.
Prerequisites: MATC 092 or MATH 110 or higher (may be taken concurrently).
Corequisites: CSCI 110.
Terms Typically Offered: Fall, Spring.

CSCI 111 CS1: Foundations of Computer Science 4 Credits
Introduction to problem solving techniques with emphasis on modularity, abstraction, analysis, and correctness of algorithm design. Using C/C++ language as a tool. Topics covered include data types, version control, Makefile, control structures, I/O, pointers, dynamic memory, functions, unit testing, debugging, structs.
Prerequisites: CSCI 110 or MATH 113 or MATH 119A.
Terms Typically Offered: Fall, Spring.

CSCI 112 CS2: Data Structures 4 Credits
Continuation of CSCI 111 using C++. Emphasis on algorithm design analysis, procedural abstraction, data abstraction, data structures, and quality programming style. Topics include the distinction between dynamic and static variables; various implementations of elementary stacks, queues, trees, and lists; comparison of recursive and iterative algorithms; program correctness; version control; and hierarchical design principles.
Prerequisites: CSCI 111 or CSCI 130.
Terms Typically Offered: Fall, Spring.

CSCI 130 Introduction to Engineering Computer Science 4 Credits
Introduction to fundamental programming concepts for engineers using a systems language and a scripting language. Programming concepts include flow control, data types and pointers. Applications include signal processing and numerical methods.
Prerequisites: MATH 135 (may be taken concurrently) or MATH 151 (may be taken concurrently).

CSCI 196 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

CSCI 206 Progressive Web App Development 3 Credits
Practical use of the technologies for creating active websites. Includes design and construction of a progressive web application. Continued coverage of CSCI 106 technologies, including HTML, CSS, and libraries like bootstrap/angular.
Prerequisites: CSCI 106.
Terms Typically Offered: Spring.

CSCI 241 Computer Architecture and Assembly Language 4 Credits
Architecture of a representative processor and its assembly language; register transfers and sequence control; realization of fetch, address, branch and execute cycles; start, stop and reset the computer; interrupt and memory mapped input-output; and peripherals and interfacing.
Prerequisites: CSCI 112.
Terms Typically Offered: Fall, Spring.

CSCI 250 CS3: Introduction to Algorithms 3 Credits
Complexity analysis and program performance. Abstract data types such as lists, trees, stacks and queues; sorting; searching and hashing; classic algorithmic strategies, including brute force, greedy, divide and conquer; space-time tradeoff; limitations of algorithm power; and optimization strategies.
Prerequisites: CSCI 112; and MATH 151 (may be taken concurrently).
Terms Typically Offered: Fall, Spring.

CSCI 260 Introduction to Database 3 Credits
Introduction to using databases. The focus of this course will be on the creation, retrieval, update, and deletion of data from databases using a variety of database management systems and programming languages.
Prerequisites: CSCI 110, CSCI 111, or CSCI 130.
Terms Typically Offered: Fall, Spring.

CSCI 296 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

CSCI 306 Web Page Design III 3 Credits
Exploration of website management issues, server-side scripting, web server security, and database interactions. Skills associated with technologies for web servers and databases will be developed. Continuation of CSCI 206.
Prerequisites: CSCI 206.
Terms Typically Offered: Fall.

CSCI 310 Advanced Programming 1-3 Credits
Exploration of higher-level programming languages and advanced concepts for CSCI majors. Specifics will vary with the language covered.
Prerequisites: CSCI 250 and MATH 151.
Terms Typically Offered: Fall, Spring.
Course may be taken 4 times for credit.

CSCI 322 Embedded Systems 3 Credits
Introduction to design of embedded systems. Skills associated with software development and debugging will be developed. Course uses modern system design platforms to create custom embedded firmware. Students will compare custom solutions to those involving the application of existing tools to control external peripherals, such as lights, sensors, and screens.
Prerequisites: CSCI 241; or CSCI 112 and ENGR 140.
Equivalent Course(s): EECE 337
Terms Typically Offered: Fall.

CSCI 330 Programming Languages 3 Credits
Principles and concepts that characterize various classes of high-level computer programming languages. Topics will include syntax and semantic issues, data types/classes, control structures, binding, and storage allocation.
Prerequisites: CSCI 250.
Terms Typically Offered: Fall, Spring.

CSCI 333 Unix Operating Systems 3 Credits
Introduction to systems programming with Unix/Linux. Topics covered include: elementary and advanced user commands, file handling, process control, library routines, device drivers, shell programming, and Unix/Linux utilities.
Prerequisites: CSCI 112 or knowledge of C++/C.
Terms Typically Offered: Spring.

CSCI 337 User Interface Design 3 Credits
Examination of user interface design (UID) principles. They include rules of perception, systems analysis, user analysis, good design principles, and testing and evaluation of designs. Using an appropriate Rapid Application Development tool, students will design a major project emphasizing UID concepts.
Prerequisites: CSCI 250 or CSCI 260.
Terms Typically Offered: Spring.

CSCI 345 Video Game Design 3 Credits
Exploration of game engine and development theory. Emphasis is on rendering, physics simulation, artificial intelligence, and optimization techniques used in the modern game construction.
Prerequisites: CSCI 112.
Terms Typically Offered: Spring.

CSCI 360 Robotic Perception and Planning 3 Credits
Examination of autonomous robotic system preceptors (sensors), actuators, and planner (control system) design architecture. Analysis of a variety of robotic control architectures and signal data analysis leading to design and build of small autonomous robots to meet challenging work environments and goals. Proficient industrial machine control language programmers and control system design professionals developed. Field related ethics explored.
Prerequisites: CSCI 111 or CSCI 130.
Terms Typically Offered: Spring.

CSCI 365 Data Mining 3 Credits
Exploration of fundamental tools and techniques for data analysis. Transforming data into information with various programming languages. Instruction in modern techniques for data analytics, future research directions.
Prerequisites: CSCI 112; and STAT 200 or STAT 215.
Terms Typically Offered: Fall.

CSCI 370 Computer Security 3 Credits
Networked-computer security, suitable for both CS and CIS majors. Topics include security framework, access control and site security, firewalls, attack methods, elements of cryptography and cryptographic systems, incidence response, security in e-commerce and e-mail, management and policy decisions for security.
Prerequisites: CSCI 250 or CISB 311.
Terms Typically Offered: Fall.

CSCI 375 Object Oriented Programming and Design Patterns 3 Credits
Advanced programming techniques using the object-oriented paradigm, with emphasis on abstractness of design, encapsulation, inheritance, and polymorphism. Additional topics include design tools and methodologies for determining classes, responsibilities, collaborations, and hierarchies. Software engineering concepts such as design patterns, tools such as version control, and unittesting object-oriented programs are also introduced.
Prerequisites: CSCI 250.
Terms Typically Offered: Fall, Spring.

CSCI 393 Internship 1-3 Credits
The internship course provides the student with the opportunity to apply classroom theory to on-the-job experiences. During the internship course, the student will work at approved professional positions related to the computer science field. The student will be required to write and fulfill course objectives with the approval of the internship coordinator.
Prerequisites: Junior standing, written permission of internship coordinator.
Course may be taken multiple times up to maximum of 15 credit hours.

CSCI 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

CSCI 396 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

CSCI 399 Internship 1-3 Credits
Hands-on work experience that is monitored/supervised by a professional.
Prerequisites: Junior standing or higher.
Terms Typically Offered: Fall, Spring.
Course may be taken multiple times up to maximum of 12 credit hours.

CSCI 405 Mobile Application Development 3 Credits
Application development on mobile platforms, such as smartphones and tablets. Topics include: understanding hardware, application API's, marketplaces, and programming languages for these platforms.
Prerequisites: CSCI 250 and CSCI 260.
Terms Typically Offered: Fall.

CSCI 420 Software Security 3 Credits
Exploration of various common security flaws in software and systems written in C/C++ programming languages. Topics include Linux commands, Bash and Python scripting, Buffer overflow, exploits, and CTFs exercises. Students will learn to find flaws and write exploit code to take advantage of the vulnerabilities as well as various mitigation techniques.
Prerequisites: CSCI 370.
Terms Typically Offered: Spring.

CSCI 425 Python Machine Learning 3 Credits
Introduction to machine learning with an applied approach. Students are introduced to essential data science tools and frameworks. Traditional classification, regression, and clustering machine learning algorithms such as decision trees, support vector machines, k-means, ensemble, boosting, and bagging techniques are introduced using real-world datasets, applications, and deployment.
Prerequisites: CSCI 112; and one of the following: STAT 200, STAT 215, STAT 241, or CISB 241.
Terms Typically Offered: Spring.

CSCI 445 Computer Graphics 3 Credits
Introduction to the use of the computer to produce images, including: two and three dimensional graphics, algorithms and data structures for hidden lines and surfaces, shading, and reflections.
Prerequisites: MATH 152 and CSCI 250.
Terms Typically Offered: Fall.

CSCI 450 Compiler Structure 3 Credits
Structures and techniques used in compiler writing, with emphasis on scanners, symbol tables, parsers, and code generation. Error analysis and code optimization are discussed.
Prerequisites: CSCI 241 and CSCI 330 (may be taken concurrently).
Terms Typically Offered: Fall.

CSCI 460 Database Design 3 Credits
Design and implementation of relational databases. Approaches and methods of design and normalization, SQL, integrity, and security will be discussed.
Prerequisites: CSCI 250.
Terms Typically Offered: Spring.

CSCI 465 Network/Application Security 3 Credits
Exploration of advanced topics in network and web-based application security, such as network exploitations and mitigations; using common network utility tools and building new tools programmatically; most common web application security flaws; browser and database security principles; and authentication and authorization in web applications.
Prerequisites: CSCI 420.
Terms Typically Offered: Fall.

CSCI 470 Operating Systems Design 3 Credits
Aspects of computer operating system design and implementation including memory management, processor management, device management, information management, and performance evaluation methods.
Prerequisites: CSCI 250 and CSCI 241.
Terms Typically Offered: Fall, Spring.

CSCI 480 Algorithms: Design and Analysis 3 Credits
Theoretical and applied techniques to reason about and prove properties of algorithms. Topics include: algorithm correctness and running time, how data structures can provide space-efficient ways to quickly answer queries about data, and how data structures can be used to build efficient algorithms. The notion of computability is explored in depth, and related problems are discussed.
Prerequisites: CSCI 250; and MATH 152 or MATH 369 (MATH 369 is highly recommended).
Terms Typically Offered: Fall, Spring.

CSCI 482 Theory of Computation 3 Credits
Computability and automata theory introduced. Regular expressions, finite and pushdown automata, Turing machines, grammars and their relationship to automata, Church-Turing hypothesis, incomputable and undecidable functions and equivalence of computability models are covered.
Prerequisites: MATH 369 and CSCI 250.

CSCI 484 Computer Networks 3 Credits
Survey of computer networks, including hardware technology for local and long haul networks, circuit and packet switching, interface between computer and network hardware, network architectures and protocols, routing, congestion and flow problems, queuing theory, and reliability issues.
Prerequisites: CSCI 112.
Terms Typically Offered: Fall, Spring.

CSCI 486 Artificial Intelligence 3 Credits
Introduction to artificial intelligence programming, with study of topics such as knowledge representation, expert systems, solution space search, non-deterministic algorithms (neural nets, genetic algorithms), etc. Programs will be written in a selected AI programming language, such as Lisp, Prolog, and Python.
Prerequisites: CSCI 250; and MATH 151 or MATH 135.
Terms Typically Offered: Fall.

CSCI 490 Software Engineering 3 Credits
Exploration of the philosophy of software engineering. Software project planning, requirement analysis, software system design and strategies, software design tools, program and system testing, system maintenance, and economics are examined.
Prerequisites: CSCI 260 and CSCI 375.
Terms Typically Offered: Fall, Spring.

CSCI 494 Seminar 1-3 Credits
Discussions of specialized topics by students, faculty, or visiting professors. One or two one-hour meetings per week.
Course may be taken 10 times for credit.

CSCI 495 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

CSCI 496 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Construction Management (CONM)

Courses

CONM 181 Principles of Construction Management 3 Credits
Construction industry practice emphasizing business organization and management techniques. Includes principles of management, organizational environments, decision-making, design, technology, leadership, and basic construction management with terminology, estimating and scheduling. This course replaces MANG 201 requirements for Construction Management majors only. It does not substitute for MANG 201 in any other way.

CONM 196 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

CONM 234 Graphic Communication for Construction Management 3 Credits
Integrated approaches for developing the skills to read plans and create visual communications, including development of 3D digital models and images using current industry software.
Terms Typically Offered: Fall.

CONM 295 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

CONM 296 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

CONM 316 Construction Materials and Methods 3 Credits
Materials and methods utilized in design and construction of vertical and horizontal projects. Course addresses proper construction methods and governing trade association standards. Sustainability and ethics relating to specification, ordering, and installation of construction materials incorporated.
Prerequisites: CONC 101 and CONC 208.

CONM 341 Estimating and Bidding for Vertical Construction 3 Credits
Application of industry recognized methods of construction estimating and bidding for contract procurement. Emphasis is on commercial building construction.
Prerequisites: CONC 228.
Terms Typically Offered: Fall.

CONM 342 Estimating and Bidding for Horizontal Construction 3 Credits
Application of industry recognized methods of construction estimating and bidding for contract procurement. Emphasis is on infrastructure, road, and bridge construction.
Prerequisites: CONC 228.
Terms Typically Offered: Fall.

CONM 361 Advanced MEP Systems 3 Credits
Electrical, heating, ventilation, air conditioning, plumbing, and fire suppression. Emphasis on design, operation, and interaction. Principles of codes, design, methods and materials as applicable to the construction industry included. Building system controls for smart buildings integrated in each component.
Prerequisites: CONC 161.

CONM 362 Structure Analysis - Statics/Materials Strength 3 Credits
Behavior of structural components and systems plus a broad overview of structural engineering analysis/design process. Principles of statics and strength of materials including properties of materials, forces, equilibrium, stresses and strains studied. Emphasis on understanding behavior of structural components associated with construction processes.
Prerequisites: MATH 130 and PHYS 111/PHYS 111L.

CONM 370 Managing the Regulatory Environment 3 Credits
Exploration of regulatory requirements by local, state, and federal agencies in the planning and execution of construction projects.
Prerequisites: CONC 101 and junior standing.
Terms Typically Offered: Fall.

CONM 375 Sustainability in the Built Environment 3 Credits
Introduction to high-performance green building techniques, sustainable practices, and lean construction for life cycle analysis of embodied energy and materials data for the built environment.
Prerequisites: Junior standing.
Terms Typically Offered: Fall.

CONM 380 Construction Project Management 3 Credits
Exploration of the professional practices performed by the project team for successful job site management, including the relationship of project participants and methods of communication, evaluation of project objectives in decision making, relationship of different project contract delivery methods, and how to develop, understand, and use contracts for job site management.
Prerequisites: CONM 341 or CONM 342.
Terms Typically Offered: Spring.

CONM 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

CONM 396 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

CONM 462 Soil and Foundation Construction 3 Credits
Properties of subsurface materials and principles of subsurface construction. Topics include soil classification and testing, soil mechanics, earthmoving operations and foundation systems from a contractor's perspective. Techniques of subsurface investigations and subsequent interpretation of soil reports studied to understand foundation construction methods and related field problems.
Prerequisites: CONM 362.
Corequisites: CONM 462L.

CONM 462L Soil and Foundation Construction Laboratory 1 Credit
Properties of subsurface materials and principles of subsurface construction. Topics include soil classification and testing, soil mechanics, earthmoving operations and foundation systems from a contractor's perspective. Techniques of subsurface investigations and subsequent interpretation of soil reports studied to understand foundation construction methods and related field problems.
Prerequisites: CONM 362.
Corequisites: CONM 462.
Terms Typically Offered: Spring.

CONM 472 Construction Planning and Scheduling 3 Credits
Planning, scheduling, and controlling construction operations. Emphasis on the planning phase of construction projects, logic diagrams, network-based scheduling techniques, and computer-assisted scheduling. Application of industry-recognized scheduling methodology to construction projects. Emphasis on communicating project schedules in written and oral presentations.
Prerequisites: CONM 341 or CONM 342.
Terms Typically Offered: Fall.

CONM 475 Construction Company and Financial Management 3 Credits
Exploration of concepts in starting, owning, and operating a construction company. The student engages in identifying the purpose, vision, values, short-term and long-term objectives, and execution plans of company. Accounting methods and systems are studied. Analysis of financial statements in developing budgets, projecting cash needs, and forecasting impacts of business decisions on profit.
Prerequisites: CONM 380 and FINA 301.

CONM 485 Construction Management Issues 3 Credits
Issues facing the professional constructor. Integration of project management includes field study, research, case readings, problem solving, and project deliverables.
Prerequisites: Senior status and permission of instructor.

CONM 495 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

CONM 496 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

CONM 499 Construction Internship 1-6 Credits
University/construction industry partnership to provide real-life working experiences. The internship program's primary purpose is to prepare the construction management student with leadership responsibilities in a technologically oriented, diverse, dynamic and global construction environment.
Prerequisites: CONM 380, and permission of instructor.
Course may be taken multiple times up to maximum of 15 credit hours.

Construction Technology (CONC)

Courses

CONC 101 Construction Safety and Regulations 3 Credits
Introduction to OSHA standards as applied to the construction industry. Discover how employee safety is critical to successful projects, both financially and in terms of the schedule. Discussion topics include: falls, electrocution, struck-by, caught in/between, managing safety and health, PPE, fire safety, excavations, cranes, and scaffolds. Special emphasis placed on recognizing the most common safety hazards in the construction industry.
Terms Typically Offered: Fall, Spring.

CONC 104 Architectural/Civil Print Reading 2 Credits
Basic architectural design theory, principles, elements, and ordering systems. Read residential and civil drawings as used in the industry. Demonstrate architectural design and drawings skills.
Terms Typically Offered: Fall.

CONC 116 Building Materials 3 Credits
Introduction to foundation and utility systems, as well as proper construction and quality practices. Includes an emphasis on construction drawings and documents for each scope.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

CONC 117 Building Materials Testing 3 Credits
Introduction to the properties and testing of materials used in today's construction projects. This includes wood products, metal, soil, aggregates, concrete, and asphalt.
Prerequisites: CONC 116 or permission of instructor.
Fees: Yes.

CONC 161 Building Mechanical/Electrical 3 Credits
Introduction to the electrical, plumbing, and HVAC systems in a building. Provides an understanding of how these systems operate and contribute to building comfort and safety. Overview of utility infrastructure and its utilization.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

CONC 196 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

CONC 208 Construction Equipment 3 Credits
Basic understanding of general equipment and methods employed in different sectors of the construction industry. Areas covered are factors affecting the selection of equipment, rental versus ownership of equipment, estimating earthwork quantities, figuring equipment production, equipment management, and quality control of projects.

CONC 218 Surveying 3 Credits
Theory and use of survey instruments dealing with measurements pertaining to plane surveying. Application of surveying methods in use of various layouts and scopes.
Prerequisites: MATH 107 or higher.
Terms Typically Offered: Spring.
Fees: Yes.

CONC 228 Estimating and Cost Control 3 Credits
Introduction to principles of construction cost estimates, including organization of information. Produce accurate quantity takeoffs both fundamentally and by use of takeoff softwares. Understand the organization of commercial contract documents and adaptation of CSI MasterFormat.
Terms Typically Offered: Fall, Spring.

CONC 234 Commercial/Industrial Plans 2 Credits
Introduction to the commercial/industrial construction industry. Processes, practices, and materials typically used in commercial/industrial construction will be studied.

CONC 245 Project Management 3 Credits
Principles of project planning, scheduling, estimation and management. Emphasis on the basic skills required to supervise personnel including oral communication, problem identification, problem solving and decision-making. The course will also cover how to control productivity on the project.
Prerequisites: CONC 228 or permission of instructor.

CONC 251 Construction Prep: Codes, Permits 3 Credits
Legal aspects including liens, contracts, bids, specifications, building permits and licensing, inspections and the Uniform Building Code. Introduces intra-trade coordination, remodeling and additions, construction practices, construction management and supervision.

CONC 265 Planning and Scheduling for the Construction Supervisor 3 Credits
Introduction to the concepts of construction planning and scheduling, including planning the sequence, duration, and relationship of activities for a construction process.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

CONC 270 Practical Applications 4 Credits
Supplemental coursework with practical work experience related to educational program. Students will work under the immediate supervision of experienced personnel at the business location. Students will work on construction sites or projects related to their career field of interest with advice of faculty.
Prerequisites: Permission of Instructor.

CONC 295 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

CONC 296 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Criminal Justice (CRMJ)

Courses

CRMJ 110 Orientation to Criminal Justice Inquiry 1 Credit
Foundations of criminal justice. Educational and career planning. Incorporation of APA writing skills for upper-division criminal justice courses.
Prerequisites: Must be a declared criminal justice pre-major.
Corequisites: CRMJ 201.
Terms Typically Offered: Fall, Spring.

CRMJ 196 Topics: 1 Credit
Course may be taken multiple times up to maximum of 15 credit hours.

CRMJ 201 Introduction to Criminal Justice 3 Credits
Philosophy, history, and development of the American criminal justice system. Survey of the role of law enforcement agencies, the courts, jails, prisons, probation, and parole in both juvenile and adult systems.
Corequisites: CRMJ 110.
Terms Typically Offered: Fall, Spring.

CRMJ 280 Crime Scene Processing 2 Credits
Hands-on experience in the documentation, recognition, collection and preservation of evidence. Evidence development techniques used in the field will also be discussed. The course includes an introduction to crime scene photography. Students will be oriented in professional values, concepts, and ethics as well as exposed to current trends in the forensic science community.
Prerequisites: ENGL 111 or higher and MATH 110 or higher.
Corequisites: CRMJ 280L.
Terms Typically Offered: Fall.

CRMJ 280L Crime Scene Processing Laboratory 1 Credit
Hands-on experience in the documentation, recognition, collection and preservation of evidence. Evidence development techniques used in the field will also be discussed. An introduction to crime scene photography. Students will be oriented in professional values, concepts, and ethics as well as exposed to current trends in the forensic science community.
Prerequisites: ENGL 111 or higher and MATH 110 or higher.
Corequisites: CRMJ 280.
Terms Typically Offered: Fall.
Fees: Yes.

CRMJ 296 Topics 1-4 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

CRMJ 301 Criminal Procedure 3 Credits
Analysis of landmark U.S. Supreme Court cases and their impact on operating procedures of law enforcement and the courts. Focuses on Fourth, Fifth, and Sixth Amendments to the U.S. Constitution.
Prerequisites: CRMJ 110, CRMJ 201, CRMJ 310, CRMJ 320, and CRMJ 328.
Terms Typically Offered: Fall, Spring.

CRMJ 302 Ethics in Criminal Justice 3 Credits
Examination of ethics in the criminal justice system, from investigation, arrest, prosecution, defense, and corrections.
Prerequisites: CRMJ 310, CRMJ 320, and CRMJ 328.
Terms Typically Offered: Fall, Spring.

CRMJ 310 The Police Process 3 Credits
Basic features of policing in the United States. Police work, police organizations, police officers, and the critical problems facing policing today are examined in social and political context.
Prerequisites: CRMJ 201.
Terms Typically Offered: Fall, Spring.

CRMJ 311 Victimology 3 Credits
Study of crime victims, their numbers, common characteristics, and roles they play in their own victimization. Legal, psychological, and social perspectives explored. Various theoretical explanations regarding both first-time and repeat victimizations discussed.
Prerequisites: CRMJ 310, CRMJ 320, and CRMJ 328.
Terms Typically Offered: Fall.

CRMJ 315 Research Methods in Criminal Justice 3 Credits
Research methods and their application to criminal justice.
Prerequisites: CRMJ 310, CRMJ 320, CRMJ 328, MATH 110 or higher, and STAT 215.
Terms Typically Offered: Fall, Spring.

CRMJ 320 Corrections 3 Credits
Examination of the role of corrections in the criminal justice system, including: history, guiding philosophies and theories, treatment approaches, custody issues, and supervision of offenders on probation and parole.
Prerequisites: CRMJ 201.
Terms Typically Offered: Fall, Spring.

CRMJ 325 Juvenile Justice and Delinquency 3 Credits
Juvenile delinquency and juvenile justice in the United States. Comparative component involved. Focus on the nature and extent of delinquency, causes of delinquency, theoretical explanations, patterns of delinquency, and social reaction to delinquency.
Prerequisites: CRMJ 310, CRMJ 320, and CRMJ 328.
Terms Typically Offered: Fall, Spring.

CRMJ 328 American Court Systems 3 Credits
Overview of the American court system at the local, state, and national levels, including consideration of the impact of prosecutors, defense personnel, judges, and other factors on court decisions and the criminal justice system.
Prerequisites: CRMJ 201 or POLS 101.
Equivalent Course(s): POLS 328
Terms Typically Offered: Fall, Spring.

CRMJ 330 Intimate Partner Violence 3 Credits
Exploration of intimate partner violence including contributing individual, structural, and cultural factors, as well as various offender patterns and typologies. Examines why victims stay in abusive relationships, the consequences of intimate partner violence, and various system responses.
Prerequisites: CRMJ 310, CRMJ 320, and CRMJ 328.
Terms Typically Offered: Spring.

CRMJ 335 Community Policing 3 Credits
Contemporary policing philosophy used and accepted by most policing organizations, domestic and foreign. Concept of community policing, history of the movement, and the various issues in its adoption and implementation. Philosophy of community policing affecting both policing organizations and the community. Impact of community policing on crime, fear of crime, and the community in which it is utilized.
Prerequisites: CRMJ 310, CRMJ 320, and CRMJ 328.
Terms Typically Offered: Fall, Spring.

CRMJ 340 Community Corrections 3 Credits
Applied and practical approach to community corrections. Assessment, supervision, reintegration, and community partnerships emphasized. Special needs populations, unique issues and challenges, and insights into day-to-day experiences of various community corrections practitioners examined.
Prerequisites: CRMJ 310, CRMJ 320, and CRMJ 328.
Terms Typically Offered: Fall.

CRMJ 345 Mental Illness and Crime 3 Credits
Exploration of the role and impact of mental illness in various aspects of the criminal justice system. Context, treatment, and impact of mental health and illness in relation to crime will be considered.
Prerequisites: CRMJ 310, CRMJ 320, and CRMJ 328.
Terms Typically Offered: Spring.

CRMJ 360 Crime and Deviance 3 Credits
Relationship between crime, deviance, and social control. Differences in definitions of criminal and deviant behaviors explored. Various criminological and sociological theories of deviance analyzed. Focus on relation to crime and social control. Societal response to deviance critically examined.
Prerequisites: CRMJ 310, CRMJ 320, and CRMJ 328.
Terms Typically Offered: Spring.

CRMJ 370 Criminology 3 Credits
Major paradigms in the field of criminology and major contributions to the field in the U.S. and abroad. Emphasis on socio-historical development and philosophical movements that shaped criminological theory and its implications for criminal justice.
Prerequisites: CRMJ 310, CRMJ 320, and CRMJ 328.
Terms Typically Offered: Fall, Spring.

CRMJ 375 Women and Crime 3 Credits
Nature of criminality pertaining to women. How and why women are treated differently than men in the criminal justice system. Analysis of why women make up a small but growing portion of criminal offenders. Explores the ramifications of criminal activity on women. Possible solutions and alternatives to the unique issues of female offenders.
Prerequisites: CRMJ 310, CRMJ 320, and CRMJ 328.
Terms Typically Offered: Fall.

CRMJ 380 Crisis Intervention in Criminal Justice 3 Credits
Examination of crisis typologies encountered throughout the criminal justice system. The methods and techniques employed by criminal justice professionals to respond to, contain, and de-escalate various forms of chaos, mayhem, and disorder are also examined.
Prerequisites: CRMJ 310, CRMJ 320, and CRMJ 328.
Terms Typically Offered: Spring, Summer.

CRMJ 395 Independent Study 1-3 Credits
Prerequisites: CRMJ 310, CRMJ 320, and CRMJ 328.
Course may be taken multiple times up to maximum of 6 credit hours.

CRMJ 396 Topics 1-3 Credits
Prerequisites: CRMJ 310, CRMJ 320, and CRMJ 328.
Course may be taken multiple times up to maximum of 15 credit hours.

CRMJ 405 Civil Liability for Law Enforcement and Corrections 3 Credits
Overview of civil liability of law enforcement and correctional officers. Torts and civil rights remedies, the doctrine of respondent superior, and chain of liability. Specific issues of use of force, failure to protect, searches and segregation, inadequate medical care, and negligence examined.
Prerequisites: CRMJ 310, CRMJ 320, and CRMJ 328.
Terms Typically Offered: Spring.

CRMJ 410 Criminal Investigations 3 Credits
Analysis of the investigative process and techniques employed in a contemporary criminal investigation. Considers theory and methodology of criminal investigation, and legal dynamics relative to achieving the goals of an investigation. Use of practical and interactive experiences by utilizing field exercises, such as evidence collection and preservation, simulations, surveillance activities, victim/suspect interviews and interrogations, and sound case preparation.
Prerequisites: CRMJ 310, CRMJ 320, and CRMJ 328.
Terms Typically Offered: Fall, Spring.

CRMJ 412 Constitutional Law 3 Credits
Analysis of American constitutional theory as articulated by the U.S. Supreme Court. Specific topics include the nature of judicial review, the powers of the President and Congress, federalism, the regulation of commerce, and the development of substantive due process.
Prerequisites: CRMJ 310, CRMJ 320, and CRMJ 328.
Equivalent Course(s): POLS 412
Terms Typically Offered: Fall.

CRMJ 413 Violent and Serial Offenders 3 Credits
Exploration of various violent and serial behaviors in different contexts. Identify violent behaviors and apply them to theory and contemporary research. Develop strategies to intervene when behaviors form in society. Focal areas include sexual predation, mass violence, serial crimes, and violent online offenders.
Prerequisites: CRMJ 310, CRMJ 320, and CRMJ 328.
Terms Typically Offered: Spring.

CRMJ 415 Counterterrorism and Law Enforcement 3 Credits
Emergence of modern terrorism and efforts to combat it. Strategies and systems involved in protecting against and responding to threats. Survey of major policies, practices, concepts, and challenges confronting practitioners in the complex fields of counterterrorism and homeland security. Exploration of various issues facing law enforcement agencies in counterterrorism efforts.
Prerequisites: CRMJ 310, CRMJ 320, and CRMJ 328.
Terms Typically Offered: Fall, Spring.

CRMJ 420 Criminal Law 3 Credits
Philosophy, history, and current state of criminal law, with emphasis on analysis and application of Colorado Statutes and the American Law Institute Model Penal Code.
Prerequisites: CRMJ 310, CRMJ 320, and CRMJ 328.
Terms Typically Offered: Fall, Spring.

CRMJ 425 Trial, Evidence, and Legal Advocacy 3 Credits
Development of written and oral advocacy skills through critical examination of legal issues, focusing on the interpretation of statutory laws and analysis of relevant case law to formulate sound, persuasive arguments throughout the adversarial process. Considers trial procedure and the law of evidence.
Prerequisites: CRMJ 310, CRMJ 320, and CRMJ 328.
Terms Typically Offered: Fall.

CRMJ 435 White-Collar Crimes 3 Credits
Examination of white-collar crime in the United States. Topics include crimes against consumers, corporate and securities fraud, environmental crime, medical crime, computer fraud, and public corruption are discussed. Individual, corporate, and governmental crimes and their societal impacts are explored. Investigative, prosecutorial, and preventative measures are also examined.
Prerequisites: CRMJ 310, CRMJ 320, and CRMJ 328.
Terms Typically Offered: Fall, Summer.

CRMJ 440 Capital Punishment 3 Credits
Examination of the issues related to the death penalty in the United States, including the history of capital punishment, important Supreme Court decisions, the process of capital punishment, the comparative costs of incarceration and execution, miscarriages of justice in capital cases, and how the criminal justice system responds to these issues.
Prerequisites: CRMJ 310, CRMJ 320, and CRMJ 328.
Terms Typically Offered: Fall, Spring.

CRMJ 445 Media and Crime 3 Credits
Exploration of the impact of media on our perceptions of the “reality” of crime and criminals. Also includes exploration of the portrayal of various areas of the criminal justice system and the employees therein.
Prerequisites: CRMJ 310, CRMJ 320, and CRMJ 328.
Terms Typically Offered: Spring.

CRMJ 465 Contemporary Issues in Criminal Justice 3 Credits
Focused analysis of specific contemporary issues in criminal justice. Topics vary according to current events and instructor expertise.
Prerequisites: CRMJ 310, CRMJ 320, and CRMJ 328.
Terms Typically Offered: Fall, Spring.

CRMJ 470 Restorative Justice 3 Credits
Examination of the realm of restorative justice, which aims to repair the harm caused by crime. Fundamental principles and practices, as well as the roles of key stakeholders will be covered.
Prerequisites: CRMJ 310, CRMJ 320, and CRMJ 328.
Terms Typically Offered: Spring, Summer.

CRMJ 480 Inside-Out Prison Exchange 3 Credits
Examination of issues involving crime and justice, the criminal justice system, corrections, and imprisonment through facilitated dialogue between students and current prisoners.
Prerequisites: CRMJ 310, CRMJ 320, and CRMJ 328.
Terms Typically Offered: Spring.

CRMJ 490 Comparative Criminal Justice 3 Credits
Capstone course. Includes survey of selected international criminal justice systems, including police, courts, and correctional components. Topics of transnational crime, terrorism, and juvenile justice explored from a global perspective. Special emphasis placed on geographical, historical, and cultural perspectives that make the systems unique and/or similar to those in the United States.
Prerequisites: CRMJ 310, CRMJ 320, and CRMJ 328.
Terms Typically Offered: Fall, Spring.

CRMJ 495 Independent Study 1-3 Credits
Prerequisites: CRMJ 310, CRMJ 320, and CRMJ 328.
Course may be taken multiple times up to maximum of 6 credit hours.

CRMJ 496 Topics 1-3 Credits
Prerequisites: CRMJ 310, CRMJ 320, and CRMJ 328.
Course may be taken multiple times up to maximum of 15 credit hours.

CRMJ 499 Internship 1-15 Credits
Opportunities to apply theoretical principles in a structured organizational or work environment. Prior instructor and site approval required at least one semester in advance. Required clock hours dependent upon credit hours.
Prerequisites: CRMJ 310, CRMJ 320, and CRMJ 328.
Course may be taken multiple times up to maximum of 15 credit hours.

CRMJ 511 Foundational Seminar 3 Credits
Introduction to graduate level studies, program expectations, and ethical considerations for research in criminal justice.
Terms Typically Offered: Fall, Spring.

CRMJ 512 Public Policy Analysis 3 Credits
Overview of public policy theories, formulation, and administration in the context of applied federal, state, and local criminal justice governance and policy decision-making. The relationship between politics and administration is examined with reference to the classical policy/administration dichotomy, stages of the policy process, and citizen engagement.
Terms Typically Offered: Fall, Spring, Summer.

CRMJ 513 Ethics in Criminal Justice Leadership 3 Credits
Exploration of ethical leadership as a process of influence within and across criminal justice organizations. Examines how leaders can effectively address conflicts when formulating and implementing policies and programs.
Terms Typically Offered: Fall, Spring, Summer.

CRMJ 514 Research Methods and Data Analysis 3 Credits
Methods of scientific inquiry applied to criminal justice issues. Includes formulation of research questions, logic of inquiry, research design, measurement, and introduction to social statistics and applications to criminal justice data analysis.
Terms Typically Offered: Fall, Spring, Summer.

CRMJ 515 Advanced Criminological Theory 3 Credits
Major paradigms in the field of Criminology. Emphasis on biosocial roots of crime, control theories, labeling theories, and conflict theories and their implications for Criminal Justice.
Terms Typically Offered: Fall, Spring.

CRMJ 516 Leadership in Criminal Justice 3 Credits
Examination of leadership theories from classic to contemporary. The concepts of leadership, power, authority, and management will be contrasted. The leader-follower dynamic is explored. Students will build the confidence and skills needed to become leaders in the field through the development and defense of a model of leadership.
Terms Typically Offered: Fall, Spring, Summer.

CRMJ 520 Budgeting and Finance in Criminal Justice 3 Credits
Introduction to the theory and practice of budgeting at all levels of government. Budget terminology, methodologies, preparation, implementation, evaluation, accounting and financial reporting systems, revenue sources, and capital improvement budgeting are examined.
Terms Typically Offered: Fall, Spring, Summer.

CRMJ 521 Evidence-Based Practices in Criminal Justice 3 Credits
Examination of program development and evaluation using evidence-based practices in a criminal justice context.
Terms Typically Offered: Fall, Spring, Summer.

CRMJ 522 Strategic Planning for Criminal Justice Agencies 3 Credits
Examination and analysis of the strategic planning process, goal setting, and strategic management in criminal justice organizations and how external environments and internal dynamics impact planning procedures.
Terms Typically Offered: Fall, Spring, Summer.

CRMJ 523 Police Management and Administration 3 Credits
Examination of law enforcement management, administration, and organizational behavior. Topics examined include power dynamics, human motivation, teamwork, conflict management, interpersonal communication, decision-making, and managing organizational change.
Terms Typically Offered: Fall, Spring, Summer.

CRMJ 524 Legal Issues in Criminal Justice 3 Credits
Examination of legal issues as they impact Criminal Justice. Emphasis on how policy is derived and affected by legal decisions. Topics vary based upon contemporary concerns and expertise of instructor.
Terms Typically Offered: Fall, Spring, Summer.

CRMJ 525 Critical Issues in Corrections 3 Credits
Historical development of institutions for confinement and analysis of present trends in correctional practice. Reviews characteristics of various correctional policies and prison life. Special emphasis on current trends and controversies.
Terms Typically Offered: Fall, Spring, Summer.

CRMJ 526 Contemporary Issues in Criminal Justice 3 Credits
Focused analysis of contemporary issues in Criminal Justice. Topics vary according to current events and instructor expertise.
Terms Typically Offered: Fall, Spring, Summer.

CRMJ 593 Master's Culminating Experience 3 Credits
Comprehensive and synthesized final project. Students complete final project under the supervision of a faculty mentor.
Prerequisites: CRMJ 511, CRMJ 512, CRMJ 513, CRMJ 514, CRMJ 515, and CRMJ 516.
Terms Typically Offered: Fall, Spring, Summer.
Course may be taken 5 times for credit.

CRMJ 596 Topics: 1-4 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Criminal Justice-POST (CRJW)

Courses

CRJW 101 Basic Police Academy I 4 Credits
Introduction to basic concepts required to meet Colorado POST standards and state police certification requirements. Skills associated with entry-level duties of a peace officer, including report writing, information gathering and overview of state laws and Constitutional Rights.
Prerequisites: Permission of Academy Director.
Terms Typically Offered: Fall, Spring, Summer.
Fees: Yes.

CRJW 102 Basic Police Academy II 5 Credits
Exploration of Colorado Revised Statutes, Constitutional Law and interview techniques required for state certification of an entry-level peace officer. Skills associated with observation, officer safety and ethics. Emphasis will be on simulating actual situations utilizing a lecture and laboratory mode of learning.
Prerequisites: Permission of Academy Director.
Terms Typically Offered: Fall, Spring, Summer.
Fees: Yes.

CRJW 103 Basic Police Academy III 7 Credits
Approaches to more complex situations an entry-level police officer might encounter including leadership, ethics, verbal de-escalation and application of Colorado laws. Skills associated with officer safety, report preparation and teamwork. Emphasis will be on simulating actual situations utilizing a lecture and laboratory mode of learning.
Prerequisites: Permission of Academy Director.
Terms Typically Offered: Fall, Spring, Summer.
Fees: Yes.

CRJW 104 Basic Police Academy IV 6 Credits
Exploration of investigative and interrogation techniques, courtroom testimony and judicial procedures, and responding to emergency situations. Skills associated with building clearing, crowd management, and crime scene documentation Conforms to POST standards and state certification requirements.
Prerequisites: Permission of Academy Director.
Terms Typically Offered: Fall, Spring, Summer.
Fees: Yes.

CRJW 106 Arrest Control 3 Credits
Skills, knowledge, and abilities necessary to effectively maintain control of a suspect when making an arrest. Emphasizes the continuum of force and de-escalation of force.
Prerequisites: Permission of Academy Director.
Terms Typically Offered: Fall, Spring, Summer.
Fees: Yes.

CRJW 107 Law Enforcement Driving 2 Credits
Skills, knowledge, and abilities required for operation of a law enforcement vehicle. Emphasizes defensive driving. Enables students to demonstrate skills by driving a vehicle under simulated conditions.
Prerequisites: Permission of Academy Director.
Terms Typically Offered: Fall, Spring, Summer.
Fees: Yes.

CRJW 108 Firearms 3 Credits
Skills, knowledge, and abilities necessary to safely use police firearms. Students will demonstrate skills by firing weapons on a firing range. The student will demonstrate basic safety techniques and will explain the firearms role within the continuum of force.
Prerequisites: Permission of Academy Director.
Terms Typically Offered: Fall, Spring, Summer.
Fees: Yes.

CRJW 296 Topics 1-8 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Culinary Arts (CUAR)

Courses

CUAR 100 Culinary Program Fundamentals 3 Credits
Introduction to the fundamentals of the culinary arts industry. Training will include: program overviews, culinary math skills, culinary vocabulary, lab requirements, basic knife skills, equipment identification and proper usage, professionalism, food service history, kitchen organization, basic principles of cooking, food science, study skills, proper food storage techniques, recipes, and cost management.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

CUAR 101 Food Safety & Sanitation 2 Credits
Exploration of the basic rules of sanitation, food-borne illnesses, safe food temperatures, and safe food handling techniques.
Terms Typically Offered: Fall.

CUAR 115 Introduction to Sustainable Cuisine 3 Credits
Impact of human food production systems on environment and society. Focus on meeting present food needs without compromising future generations. Topics include connections among agriculture, food production, ecology, ethics, nutrition, health, cuisine and foodservice operations.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

CUAR 125 Introduction to Foods 3 Credits
Exploration of fundamental principles and practices of a commercial kitchen, including the preparation of stocks, sauces, soups, salads and dressings, sandwiches, and hors d'oeuvre.
Prerequisites: CUAR 100 and CUAR 101 (both may be taken concurrently).
Terms Typically Offered: Fall, Spring.
Fees: Yes.

CUAR 129 Center of the Plate 3 Credits
Basic methods for preparation and cooking of a variety of complete meals in a commercial kitchen.
Prerequisites: CUAR 100 and CUAR 101 (both may be taken concurrently).
Terms Typically Offered: Fall, Spring.
Fees: Yes.

CUAR 145 Introduction to Baking 3 Credits
Exploration of basic baking principles, the characteristics and functions of ingredients, and production techniques for a variety of baked goods in a commercial kitchen.
Prerequisites: CUAR 100 and CUAR 101 (both may be taken concurrently).
Terms Typically Offered: Fall, Spring.
Fees: Yes.

CUAR 150 Baking: Decorating and Presentation 3 Credits
Introduction to techniques and equipment used in the modern bakery to produce, decorate and present pastries and desserts using a variety of products.
Prerequisites: CUAR 145.
Terms Typically Offered: Spring.
Fees: Yes.

CUAR 151 Intermediate Bread Preparation 3 Credits
Examination of techniques and equipment used in the modern bakery to craft traditional and artisanal yeast breads using a variety of commercial and pre-ferment/wild yeast leavening methods and production techniques.
Prerequisites: CUAR 145.
Terms Typically Offered: Spring.
Fees: Yes.

CUAR 152 Individual Fancy Desserts Production 3 Credits
Preparation and decoration of individual dessert items using production techniques and equipment used in commercial bakeries to craft traditional and modern pastries, tarts, petite fours and cookies.
Prerequisites: CUAR 145.
Terms Typically Offered: Spring.
Fees: Yes.

CUAR 153 Confectionaries and Petit Fours 3 Credits
Introduction to the art of advanced pastry skills utilized to craft specialty items such as chocolates, candies and confections, marzipan and pastillage sculpture, and petit fours.
Prerequisites: CUAR 145.
Terms Typically Offered: Fall.
Fees: Yes.

CUAR 156 Nutrition for the Hospitality Professional 3 Credits
Fundamentals of nutrition as they apply to the food service industry.
Terms Typically Offered: Fall.
Fees: Yes.

CUAR 160 Cake Decorating 4 Credits
Variety of cake decorating techniques, including flowers, leaves, borders, and attractive arrangements. Preparation of and work with gumpaste, rolled fondant and airbrushing techniques.
Prerequisites: CUAR 145.
Terms Typically Offered: Fall.
Fees: Yes.

CUAR 163 Advanced Wedding Cakes 3 Credits
Refinement of skills in the creation of wedding cakes and other tiered cakes for special events.
Prerequisites: CUAR 145 and CUAR 160.
Terms Typically Offered: Spring.
Fees: Yes.

CUAR 190 Dining Room Management 3 Credits
Exploration of management techniques, organization, and service-related skills common to dining room operations.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

CUAR 196 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

CUAR 236 Advanced Baking 3 Credits
Refinement of skills in the creation of breads and pastries, dessert garnishes and accompanying sauces, and specialty dessert products.
Prerequisites: CUAR 145.
Terms Typically Offered: Spring.
Fees: Yes.

CUAR 238 American Regional Cuisine 3 Credits
Development of advanced cooking skills involving foods representative of major American regions. Emphasis is placed on defining regions based on geography, history, culture, and foodways.
Prerequisites: CUAR 125.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

CUAR 245 International Cuisine 3 Credits
Development of advanced cooking skills involving the preparation of a variety of international cuisines. Emphasis is placed on identifying ingredients, preparation methods, customs, and styles of service that define various world cuisines.
Prerequisites: CUAR 125 and CUAR 129.
Terms Typically Offered: Fall.
Fees: Yes.

CUAR 251 Advanced Garde Manger and Hors D'Oeuvres 3 Credits
Development of advanced skills in traditional cold kitchen preparations including sausages, pates, cured and smoked products, cheese, pickles, and condiments.
Prerequisites: CUAR 125 and CUAR 129.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

CUAR 255 Supervision in the Hospitality Industry 3 Credits
Skills necessary for creating a goal-oriented environment utilizing management principles in the hospitality industry.

CUAR 262 Purchasing for the Hospitality Industry 3 Credits
Exploration of the purchasing, selection, and procurement of food and supplies in the hospitality industry.
Prerequisites: CUAR 100 and CUAR 101.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

CUAR 269 Dietary Baking 3 Credits
Examination of techniques and equipment used to produce high quality bakery products that address the issue of common food allergens and intolerances.
Prerequisites: CUAR 145 and CUAR 156.
Terms Typically Offered: Fall.
Fees: Yes.

CUAR 281 Internship 1-6 Credits
Places students in an actual work situation where they participate in the operation of a foodservice establishment.
Course may be taken multiple times up to maximum of 10 credit hours.

CUAR 293 Restaurant Operations Practicum 4 Credits
Rotation through a variety of positions in a working professional restaurant. Responsibilities include serving guests and preparing food, while maintaining established standards and levels of service.
Prerequisites: CUAR 145, CUAR 190, CUAR 238, CUAR 262, and VITE 179.
Terms Typically Offered: Fall, Spring, Summer.

CUAR 295 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

CUAR 296 Topics: 1-5 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

CUAR 297 Practicum 1-2 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Dance (DANC)

Courses

DANC 115 Dance Appreciation-GTAH1 3 Credits
Exploration of the roots and trends of the art of dance, from the primitive to the contemporary. Introduction of aesthetic guidelines for looking at dance as it relates to America and the world.
Essential Learning Categories: Fine Arts
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

DANC 140 Dance Company and Production 2 Credits
Experience in elements that go into creating a dance production, including: rehearsal, choreography, performance, collaboration, and community engagement. For first year students.
Terms Typically Offered: Spring.

DANC 154 Dance Team 1 Credit
Participation on the Mavettes Dance Team at the freshman standing level. Audition or permission of instructor required. Only one credit hour of DANC 154 counts as a KINA activity credit.

DANC 156 Dance Performance 1 Credit
Participation in the creation and production of a dance choreographed by faculty, guest artist, and/or student choreographer. Students participate in an audition. For first year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

DANC 160 Beginning Ballet 1 Credit
Introduction to ballet technique for students interested in completing a wellness requirement.
Terms Typically Offered: Fall, Spring.

DANC 169 Beginning Modern Dance 1 Credit
Introduction to modern technique for students interested in completing a wellness requirement.
Terms Typically Offered: Fall, Spring.

DANC 174 Beginning Jazz Dance 1 Credit
Introduction to jazz technique for students interested in completing a wellness requirement.
Terms Typically Offered: Fall, Spring.

DANC 177 Beginning Tap Dance 1 Credit
Introduction to tap technique for students interested in completing a wellness requirement.
Terms Typically Offered: Fall, Spring.

DANC 180 Beginning Hip Hop Dance 1 Credit
Introduction to Hip Hop technique for students interested in completing a wellness requirement.
Terms Typically Offered: Fall, Spring.

DANC 181 Ballet I 2 Credits
Study of ballet technique at the beginner level.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

DANC 182 Jazz I 2 Credits
Study of jazz dance technique at the beginner level.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

DANC 183 Contemporary Modern I 2 Credits
Study of contemporary modern dance technique at the beginner level.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

DANC 184 Tap I 2 Credits
Study of tap technique at the beginner level.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

DANC 185 Hip Hop I 2 Credits
Study of Hip Hop dance at the beginner level.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

DANC 196 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

DANC 220 Moving Anatomy and Wellness 3 Credits
Introduction to principles of embodied wellness, experiential and functional anatomy, and somatic conditioning practices.
Terms Typically Offered: Fall, Spring.

DANC 222 Dance Conditioning 3 Credits
Introduction to musculoskeletal system as it applies to cross-conditioning for dancers and other performing artists and athletes. Best practices in stretching, strength training, and injury prevention.
Terms Typically Offered: Fall, Spring.

DANC 230 Contemporary Modern IIA 2 Credits
Study of contemporary modern dance at the advanced beginner level.
Prerequisites: DANC 183.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

DANC 231 Contemporary Modern IIB 2 Credits
Continued study of contemporary modern dance at the advanced beginner level.
Prerequisites: DANC 183.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

DANC 232 Jazz IIA 2 Credits
Continued study of jazz dance technique at the advanced beginner level.
Prerequisites: DANC 182.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

DANC 233 Jazz IIB 2 Credits
Continued study of jazz dance technique at the advanced beginner level.
Prerequisites: DANC 182.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

DANC 234 Ballet IIA 2 Credits
Study of ballet at the advanced beginner level.
Prerequisites: DANC 181.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

DANC 235 Ballet IIB 2 Credits
Continued study of ballet at the advanced beginner level.
Prerequisites: DANC 181.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

DANC 236 Tap IIA 2 Credits
Study of tap technique at an advanced beginner level.
Prerequisites: DANC 184.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

DANC 237 Tap IIB 2 Credits
Continued study of tap technique at the advanced beginner level.
Prerequisites: DANC 184.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

DANC 240 Dance Company and Production 2 Credits
Experience in elements that go into creating a production, including: rehearsal, choreography, performance, collaboration, and community engagement. For second year students.
Terms Typically Offered: Spring.

DANC 250 Dance Improvisation 2 Credits
Introduction to and application of basic theories regarding embodied and creative practices of dance improvisation.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

DANC 254 Dance Team 1 Credit
Participation on the Mavettes Dance Team at the sophomore standing level.

DANC 256 Dance Performance 1 Credit
Participation in the creation and performance of a dance choreographed by faculty, guest artist, and/or student choreographer. Students must participate in an audition. For second year students.
Prerequisites: Permission of instructor by audition.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

DANC 260 Movement Analysis and Improvisation 3 Credits
Introduction to the functional and expressive elements of human movement with a specific emphasis on Laban Movement Analysis, improvisation, and creative practice.
Terms Typically Offered: Fall, Spring.

DANC 285 Hip Hop II 2 Credits
Study of Hip Hop dance at the intermediate level.
Prerequisites: DANC 185.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

DANC 290 Choreography Practice and Production I 1 Credit
Practice of skills in choreography and dance production elements in both traditional and non-traditional contexts at the beginner level. Only students who have participated in at least one dance concert through the CMU Dance Program are eligible to enroll in this course.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

DANC 296 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

DANC 310 Dance Pedagogy 3 Credits
Theory and application of methods of teaching dance techniques.
Prerequisites: Must have completed three of the following: DANC 230, DANC 231, DANC 232, DANC 233, DANC 234, DANC 235, DANC 285, DANC 330, DANC 331, DANC 332, DANC 333, DANC 334, DANC 335, or DANC 385.
Terms Typically Offered: Fall, Spring.

DANC 315 History and Philosophy of Dance 3 Credits
Study of the history and development of concert and theatrical dance, emphasizing 20th and 21st century dance.
Prerequisites: ENGL 112.
Terms Typically Offered: Fall, Spring.

DANC 316 History and Philosophy of Dance II 3 Credits
Cultural, historic, and aesthetic exploration of dance in the 20th Century.
Prerequisites: DANC 315.

DANC 330 Contemporary Modern IIIA 2 Credits
Study of contemporary modern dance at the intermediate level.
Prerequisites: DANC 230 or DANC 231.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

DANC 331 Contemporary Modern IIIB 2 Credits
Continued study of contemporary modern dance at the intermediate level.
Prerequisites: DANC 230 or DANC 231.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

DANC 332 Jazz IIIA 2 Credits
Study of jazz dance technique at the intermediate level.
Prerequisites: DANC 232 or DANC 233.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

DANC 333 Jazz IIIB 2 Credits
Continued study of jazz dance technique at the intermediate level.
Prerequisites: DANC 232 or DANC 233.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

DANC 334 Ballet IIIA 2 Credits
Study of ballet at the intermediate level.
Prerequisites: DANC 234 or DANC 235.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

DANC 335 Ballet IIIB 2 Credits
Continued study of ballet at the Intermediate level.
Prerequisites: DANC 234 or DANC 235.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

DANC 336 Tap IIIA 2 Credits
Study of tap dance at the intermediate level.
Prerequisites: DANC 236 or DANC 237.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

DANC 337 Tap IIIB 2 Credits
Continued study of tap dance at an intermediate level.
Prerequisites: DANC 236 or DANC 237.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

DANC 340 Dance Company and Production 2 Credits
Experience in elements that go into creating a production, including: rehearsal, choreography, performance, collaboration, and community engagement. For third year students.
Terms Typically Offered: Spring.

DANC 354 Dance Team 1 Credit
Participation on the Mavettes Dance Team at the junior standing level.

DANC 355 Choreography 3 Credits
Investigation and application of theories of choreography and creative practice, including critical analysis of the art form.
Prerequisites: DANC 250.
Terms Typically Offered: Fall, Spring.

DANC 356 Dance Performance 1 Credit
Participation in the creation and performance of a dance choreographed by faculty, guest artist, and/or student choreographer. Students must participate in an audition. For third year students.
Prerequisites: Permission of instructor by audition.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

DANC 360 Movement Analysis and Creative Practice 3 Credits
Introduction to concepts and creative practices associated with the theoretical system of Laban Movement Analysis.
Prerequisites: DANC 250.
Terms Typically Offered: Fall, Spring.

DANC 385 Hip Hop III 2 Credits
Study of Hip Hop dance at the advanced level.
Prerequisites: DANC 285.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

DANC 390 Choreography Practice and Production II 1 Credit
Practice of skills in choreography and dance production elements in both traditional and non-traditional contexts at the intermediate level. Only students who have participated in at least one dance concert through the CMU Dance Program are eligible to enroll in this course.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

DANC 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

DANC 396 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

DANC 430 Contemporary Modern IVA 2 Credits
Study of contemporary modern dance at the advanced level.
Prerequisites: DANC 330 or DANC 331.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

DANC 431 Contemporary Modern IVB 2 Credits
Continued study of contemporary modern dance at the advanced level.
Prerequisites: DANC 330 or DANC 331.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

DANC 432 Jazz IVA 2 Credits
Study of jazz dance at the advanced level.
Prerequisites: DANC 332 or DANC 333.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

DANC 433 Jazz IVB 2 Credits
Continued study of jazz dance at the advanced level.
Prerequisites: DANC 332 or DANC 333.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

DANC 434 Ballet IVA 2 Credits
Study of ballet technique at the advanced level.
Prerequisites: DANC 334 or DANC 335.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

DANC 435 Ballet IVB 2 Credits
Continued study of ballet technique at the advanced level.
Prerequisites: DANC 334 or DANC 335.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

DANC 436 Tap IVA 2 Credits
Study of tap dance at the advanced level.
Prerequisites: DANC 336 or DANC 337.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

DANC 437 Tap IVB 2 Credits
Continued study of tap dance at the advanced level.
Prerequisites: DANC 336 or DANC 337.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

DANC 440 Dance Company and Production 2 Credits
Experience in elements that go into creating a production, including: rehearsal, choreography, performance, collaboration, and community engagement. For fourth year students.
Terms Typically Offered: Spring.

DANC 454 Dance Team 1 Credit
Participation on the Mavettes Dance Team at the senior standing level.

DANC 456 Dance Performance 1 Credit
Student participation in the creation and performance of a dance choreographed by faculty, guest artist, and/or student choreographer. Students must participate in an audition. For fourth year students.
Prerequisites: Permission of instructor by audition.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

DANC 490 Choreography Practice and Production III 1 Credit
Practice of skills in choreography and dance production elements in both traditional and non-traditional contexts at the advanced level. Intended for students who have already participated in at least one dance concert through the CMU dance program.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

DANC 494 Senior Dance Capstone 3 Credits
Research and sharing of a creative and/or scholarly project to demonstrate skills necessary to enter the professional field of dance. Completion of a professional portfolio.
Terms Typically Offered: Fall, Spring.

DANC 495 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

DANC 496 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

DANC 499 Internship 1-9 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Dental Hygiene (DEHY)

Courses

DEHY 100 Introduction to Dental Hygiene 1 Credit
Introduction to the basic knowledge, skills, and theory for first-year dental hygiene students, including instrument recognition, ethical standards, HIPAA, OSHA compliance, dental software, care planning, and documentation.
Prerequisites: Admission to Dental Hygiene Program.
Corequisites: DEHY 101 and DEHY 101L.
Terms Typically Offered: Spring.

DEHY 101 Preclinical Dental Hygiene 2 Credits
Introduction to basic dental hygiene theory, instrumentation, and patient care assessment. Focuses on the application of diagnostic, preventive, and therapeutic procedures in a wide variety of areas related to clinical practice, health promotion, and disease prevention. Lab provides clinical learning experience with procedures and techniques for instrumentation, infection control, and patient assessment. Course fee may be nonrefundable.
Corequisites: DEHY 100 and DEHY 101L.
Terms Typically Offered: Spring.

DEHY 101L Preclinical Dental Hygiene Laboratory 3 Credits
Introduction to basic dental hygiene theory, instrumentation, and patient care assessment. Focuses on the application of diagnostic, preventive, and therapeutic procedures in a wide variety of areas related to clinical practice, health promotion, and disease prevention. Lab provides clinical learning experience with procedures and techniques for instrumentation, infection control, and patient assessment. Course fee may be nonrefundable.
Corequisites: DEHY 100 and DEHY 101.
Terms Typically Offered: Spring.

DEHY 102 Dental Anatomy and Histology 3 Credits
Introduction to the foundational general anatomy of the face, including landmarks, terminology, and tooth identification, with emphasis on teeth anatomical and histologic features and oral cavity structures. Embryology of the face, oral and nasal cavities, and tooth development also introduced.
Prerequisites: Admission to the Dental Hygiene Program.
Terms Typically Offered: Spring.

DEHY 103 Dental Radiology 3 Credits
Introduction to the principles of x-radiation production and safety factors. Application and theory of properly exposing, processing, mounting, and evaluating radiographs. Identification of normal anatomic landmarks and pathologic conditions. Focuses on utilization of the laboratory in performing procedures necessary to produce quality radiograph.
Prerequisites: Admission to Dental Hygiene Program.
Terms Typically Offered: Spring.

DEHY 104 Dental Medical Emergencies 2 Credits
Extensive training in the practical skills applicable to dental hygienists and the scope of responsibility for medical emergency management, as dictated by state dental practice law. Includes content and use of emergency kits, oxygen support systems, ASA (injection) classification to evaluate risk, and emergency management simulations.
Prerequisites: Admission to the Dental Hygiene Program.
Terms Typically Offered: Spring.

DEHY 105 Periodontics I 2 Credits
Introduction to the principles of periodontics with a focus on the recognition of tissues in health and disease, macro and microanatomy of the periodontium, and histopathology of periodontal diseases and other related gingival conditions. Explains the theory and discussion of periodontal assessment, etiology, epidemiology, inflammatory process/immune response, and the American Academy of Pediatrics (AAP) Periodontal Disease Classification System.
Prerequisites: Admission to the Dental Hygiene Program.
Terms Typically Offered: Fall.

DEHY 106 Head and Neck Anatomy 1 Credit
Analysis of the anatomy and function of the head and neck, with emphasis on the muscles of mastication and facial expression, bones of the head and neck, the temporomandibular joint, lymphatics, glandular system, vascular supply, nervous system, and the oral cavity.
Prerequisites: Admission to the Dental Hygiene Program.
Terms Typically Offered: Fall.

DEHY 107 Dental Materials 2 Credits
Exploration of the physical, chemical, and biological properties of materials used in dentistry. Emphasis on the selection, manipulation, and application of restorative, preventive, and laboratory materials to enhance clinical outcomes. Students will gain hands-on experience in material handling and develop an understanding of their role in patient safety, comfort, and long-term oral health.
Prerequisites: Admission to Dental Hygiene Program.
Terms Typically Offered: Fall.

DEHY 108 Applied Nutrition in Dentistry 2 Credits
Development of foundational knowledge in general nutrition, including nutrient functions, sources, and effects on the body, with a focus on the oral cavity. The integration of physiological and behavioral concepts through dietary assessment and nutritional intervention in dental hygiene care will also be covered.
Prerequisites: Admission to Dental Hygiene Program.
Terms Typically Offered: Fall.

DEHY 109 Clinical Theory of Dental Hygiene I 2 Credits
Knowledge and application of clinical dental hygiene principles, including patient assessment, infection control, and preventive care. Students will learn to apply theoretical concepts to clinical procedures, develop individualized treatment plans, and practice ethical, patient-centered care. The course prepares students to integrate evidence-based practices and professional standards into clinical settings.
Prerequisites: Admission to the Dental Hygiene Program.
Corequisites: DEHY 109L.
Terms Typically Offered: Fall.

DEHY 109L Clinical Practice of Dental Hygiene I 4 Credits
Knowledge and application of clinical dental hygiene principles, including patient assessment, infection control, and preventive care. Students will learn to apply theoretical concepts to clinical procedures, develop individualized treatment plans, and practice ethical, patient-centered care. The course prepares students to integrate evidence-based practices and professional standards into clinical settings.
Prerequisites: Admission to the Dental Hygiene Program.
Corequisites: DEHY 109.
Terms Typically Offered: Fall.

DEHY 200 Pain and Anxiety Management 2 Credits
Development of a working knowledge of the theory and practice of local anesthesia in dentistry and dental hygiene, with an emphasis on mastering the armamentarium and techniques of regional anesthesia. Covers the necessary knowledge and skills for proficient and safe administration of local anesthetics, as well as the equipment and methods used for nitrous oxide/oxygen sedation in the dental office.
Prerequisites: Admission to Dental Hygiene Program.
Terms Typically Offered: Spring.

DEHY 201 General and Oral Pathology 3 Credits
Fundamentals of general pathology and the disease process, with emphasis on oral pathology and recognizing and identifying common pathologic conditions in the oral cavity. Assists students in determining appropriate referral mechanisms for a definitive diagnosis.
Prerequisites: Admission to Dental Hygiene Program.
Terms Typically Offered: Spring.

DEHY 202 Clinical Practice of Dental Hygiene I-A 2 Credits
Facilitation of patient care opportunities for performing dental hygiene treatment for both periodontally-compromised and healthy patients, utilizing advanced instrumentation and power scaling. Development of foundational clinical skills, including patient assessment, oral hygiene instruction, and routine procedures like scaling and fluoride application.
Prerequisites: Admission to the Dental Hygiene Program.
Terms Typically Offered: Spring.

DEHY 203 Applied Dental Pharmacology 2 Credits
Examination of general pharmacology and relevant drugs that may influence the management of dental hygiene patients. Enables students to perform safe and effective patient evaluations for dental hygiene treatment.
Prerequisites: Admission to Dental Hygiene Program.
Terms Typically Offered: Spring.

DEHY 204 Periodontics II 2 Credits
Continued exploration of theoretical and clinical preparations of the dental hygiene process of care, treatment planning, non-surgical treatment, evaluation of treatment, and maintenance need. Research and decision-making skills developed related to risk factors, etiologic agents, and treatment modalities. Includes comprehensive periodontal assessment, supplemental diagnostics, periodontal pharmacology, and evidence-based treatment planning.
Prerequisites: DEHY 105.
Terms Typically Offered: Spring.

DEHY 205 Advanced Clinical Skills 1 Credit
Dental hygiene theory and laboratory experiences, with major topics related to advanced clinical skills, including advanced instrumentation fulcrums, root morphology, periodontal files, periodontal file sharpening, curettes, Nabors probe, universal focus spray ultrasonics, and scaling implants.
Prerequisites: Admission to the Dental Hygiene Program.
Terms Typically Offered: Spring.

DEHY 206 Periodontics III 1 Credit
Comprehensive dental hygiene clinical management techniques for periodontal patients, covering the general principles of periodontal surgery, the surgical management of soft tissues and osseous defects, wound healing, implants, and the role of occlusion in periodontal therapy.
Prerequisites: DEHY 105 and DEHY 204.
Terms Typically Offered: Summer.

DEHY 207 Ethics and Practice Management 2 Credits
Knowledge of ethical principles, legal responsibilities, and practice management strategies. Topics include: patient confidentiality, informed consent, and professional conduct. Skills in managing office operations, scheduling, financial planning, and team collaboration. Prepares students for ethical decision-making and efficient practice management.
Prerequisites: Admission to the Dental Hygiene Program.
Terms Typically Offered: Summer.

DEHY 208 Clinical Theory of Dental Hygiene II 2 Credits
Acquisition and application of management skills for operating a dental office, emphasizing self-exploration in developing personal and professional goals and examining professional ethics, legal issues, and the relationship to the licensed dental hygiene practice.
Prerequisites: DEHY 202.
Corequisites: DEHY 208L.
Terms Typically Offered: Summer.

DEHY 208L Clinical Practice of Dental Hygiene II 6 Credits
Acquisition and application of management skills for operating a dental office, emphasizing self-exploration in developing personal and professional goals and examining professional ethics, legal issues, and the relationship to the licensed dental hygiene practice.
Prerequisites: DEHY 202.
Corequisites: DEHY 208.
Terms Typically Offered: Summer.

DEHY 209 Community Dental Health and Field Experience 3 Credits
Development of knowledge in the concepts, methods, and social determinants of health related to improving oral health in the community. Emphasis placed on evidence-based strategies for the development of oral health promotion, oral disease prevention, and oral health management programs. Incorporates supervised field experiences in low-income, school, and other public facilities, as well as private health and education-oriented organizations.
Prerequisites: Admission to the Dental Hygiene Program.
Terms Typically Offered: Fall.

DEHY 210 Clinical Theory of Dental Hygiene III 2 Credits
Preparation for transition to provision of dental hygiene services in private practice and the ability to pass both written National Board examinations and regional dental hygiene clinical examinations. Major topics include: cosmetic bleaching, air-powered polishing, application of the re-evaluation process in treatment planning, application of effective tobacco cessation process, and techniques and processes for gingival curettage.
Prerequisites: DEHY 208/DEHY 208L.
Corequisites: DEHY 210L.
Terms Typically Offered: Fall.

DEHY 210L Clinical Practice of Dental Hygiene III 6 Credits
Preparation for transition to provision of dental hygiene services in private practice and the ability to pass both written National Board examinations and regional dental hygiene clinical examinations. Major topics include: cosmetic bleaching, air-powered polishing, application of the re-evaluation process in treatment planning, application of effective tobacco cessation process, and techniques and processes for gingival curettage.
Prerequisites: DEHY 208/DEHY 208L.
Corequisites: DEHY 210.
Terms Typically Offered: Fall.

DEHY 211 Advanced Dental Hygiene Theory 2 Credits
Care of patients with special needs, such as physical and mental disabilities or systemic conditions. Emphasizes patient management and treatment considerations.
Prerequisites: Admission to Dental Hygiene Program.
Terms Typically Offered: Fall.

DEHY 212 National Boards Review 1 Credit
Formal review sessions for second-year dental hygiene students preparing to sit for the National Board Examination.
Prerequisites: DEHY 208/DEHY 208L.
Terms Typically Offered: Fall.

Diagnostic Medical Sonography (DMSO)

Courses

DMSO 400L Introduction to Cardiac Sonography Laboratory 1 Credit
Introduction to cardiac sonography procedures. The topics of exam room set-up, patient preparation and education, and body ergonomics will be explored. Various echocardiography settings and their influence on a sonographer's approach and preparation will be discussed.
Prerequisites: Admission to Diagnostic Medical Sonography Program.
Terms Typically Offered: Summer.

DMSO 409 Sonography Clinical Experience I 11 Credits
Introduction to sonography clinical education in the clinical environment. The course provides hands-on training in performing sonographic procedures, providing patient care, assessment, and clinical safety.
Prerequisites: Admission to Diagnostic Medical Sonography Program.
Corequisites: DMSO 410 and DMSO 411.
Terms Typically Offered: Fall.

DMSO 410 Sonography Principles and Instrumentation I 2 Credits
Introduction to the physical principles of ultrasound in diagnostic medical sonography. Analysis of the interaction of ultrasound and matter, the operation of the transducers, and the Doppler concepts. Skills associated with image acquisition and optimization will be developed.
Prerequisites: Admission to Diagnostic Medical Sonography Program.
Corequisites: DMSO 409 and DMSO 411.
Terms Typically Offered: Fall.

DMSO 411 Cardiac Sonography Procedures I 2 Credits
Introduction to sonography of the heart. The topics of basic embryology, anatomy, physiology, conduction system, and great vessels will be explored. Basic scanning positions, techniques, image protocols, and modes will be discussed. Principles of hemodynamics, cardiac cycle, ventricular function for a normal heart, and abnormal pathology.
Prerequisites: Admission to Diagnostic Medical Sonography Program.
Corequisites: DMSO 409 and DMSO 410.
Terms Typically Offered: Fall.

DMSO 419 Sonography Clinical Experience II 2 Credits
Exploration of sonography clinical education in the clinical environment. The course provides hands-on training in performing sonographic procedures, providing competent patient care, assessment, and clinical safety.
Prerequisites: Admission to Diagnostic Medical Sonography Program.
Corequisites: DMSO 420, DMSO 421, and DMSO 429.
Terms Typically Offered: Spring.

DMSO 420 Sonography Principles and Instrumentation II 1 Credit
Study of the physical principles of ultrasound in diagnostic medical sonography. Analysis of the advanced scanning techniques, image artifacts, and processing. Skills associated with image optimization and quality assurance will be developed.
Prerequisites: Admission to Diagnostic Medical Sonography Program.
Corequisites: DMSO 419, DMSO 421, and DMSO 429.
Terms Typically Offered: Spring.

DMSO 421 Cardiac Sonography Procedures II 3 Credits
Introduction to advanced cardiac sonography procedures. Topics of transesophageal echocardiograms, treadmill, bicycle, pharmacological stress echograms, intracardiac imaging, structural heart interventions, cardiac surgeries, and common adult congenital deformities will be explored. Criteria, protocols, scanning requirements, measurements, and quantifications will be analyzed for each procedure.
Prerequisites: Admission to Diagnostic Medical Sonography Program.
Corequisites: DMSO 419, DMSO 420, and DMSO 429.
Terms Typically Offered: Spring.

DMSO 429 Sonography Clinical Experience III 12 Credits
Advancement of sonography clinical education in the clinical environment. The course provides hands-on training in performing sonographic procedures, providing patient care, assessment, and clinical safety.
Prerequisites: Admission to Diagnostic Medical Sonography Program.
Corequisites: DMSO 419, DMSO 420, and DMSO 421.
Terms Typically Offered: Spring.

DMSO 430 Sonography Registry Review 2 Credits
Synthesis of diagnostic medical sonography concepts, principles, and procedures. The course includes preparation for the national certification examinations.
Prerequisites: Admission to Diagnostic Medical Sonography Program.
Corequisites: DMSO 439.
Terms Typically Offered: Summer.

DMSO 439 Sonography Clinical Experience IV 9 Credits
Demonstration of competency in the sonography clinical education. The course provides hands-on training in performing sonographic procedures with a higher level of autonomy, providing advanced patient care, assessment, and clinical safety.
Prerequisites: Admission to Diagnostic Medical Sonography Program.
Corequisites: DMSO 430.
Terms Typically Offered: Summer.

Digital Filmmaking (FILM)

Courses

FILM 110 Film Expression 3 Credits
Critical examination of the nature and structure of motion picture expression. Concentrates on directors', editors', and cinematographers' use of various storytelling and visual techniques.

FILM 111 Animation Expression 3 Credits
Critical exploration of the evolution and impact of animated storytelling through history. Focus on how animators, studios, and artists have used innovative techniques, unique styles, and emerging technologies to shape animated expression. By examining the work of influential studios and creators, students will gain insight into the development of storytelling, character design, and visual artistry that define the animation industry.
Terms Typically Offered: Fall.

FILM 114 Introduction to Animation I 3 Credits
Exploration of the foundational principles and techniques of animation. Topics include: squash-and-stretch, timing, anticipation, and other techniques to create dynamic and engaging animations, development of proficiency in industry-standard digital animation software, and the foundations of visual storytelling.
Terms Typically Offered: Fall.
Fees: Yes.

FILM 115 Cinema Design Tools 3 Credits
Exploration of Digital SLR camera use, raster photo-editing software, and vector drawing software for narrative video production.
Fees: Yes.

FILM 120 Film Script Analysis 3 Credits
Study of film scripts by critically focusing on story techniques and analytical methods of summarizing, describing, interpreting, discussing and evaluating story narrative.

FILM 124 Drawing for Animation 3 Credits
Essential principles of drawing, with a strong emphasis on kinetic drawing and gesture drawing, to create compelling and expressive animated characters and scenes.
Terms Typically Offered: Fall.
Fees: Yes.

FILM 125 Production Drawing & Design 3 Credits
Foundational methods of digital drawing to create characters and scenery for filmmaking concept art and previsualization.
Fees: Yes.

FILM 130 Short-Form Screenwriting 3 Credits
Project- and activity-based introduction in screenwriting. Write, rewrite, and polish short-form scripts through collaboration. Build a portfolio to use in student productions.
Fees: Yes.

FILM 134 Storyboarding 3 Credits
Development of a comprehensive understanding of the role of storyboarding in animation production. From concept to execution, explore the process of visualizing stories, characters, and scenes, ensuring that the storytelling vision is effectively communicated to the entire production team. Camera movements, framing, lighting, actor movement, and professional diagramming will also be explored.
Terms Typically Offered: Fall.
Fees: Yes.

FILM 135 Cinema Editing Aesthetics 3 Credits
Foundations of video editing theory. Find a personal editorial voice by uncovering the building blocks, personal decisions, and practices that make up the craft of narrative editing.
Fees: Yes.

FILM 139 Professional Documentary Production 3 Credits
Proposing, researching, writing, and shooting original documentary projects. Students will be introduced to basic digital single-lens reflex camera cinematography theory and techniques.
Terms Typically Offered: Fall.
Fees: Yes.

FILM 140 Commercial & Corporate Production 3 Credits
Introduction to basic digital single-lens reflex camera cinematography theory and techniques through commercial and corporate collaborative production.
Fees: Yes.

FILM 141 Film Production Assistant I 1 Credit
Foundational film production assistant skills. Assist in all phases of on-location production of second-year student films. Students may assist at nights and weekends.
Terms Typically Offered: Fall.
Fees: Yes.

FILM 142 Film Production Assistant II 1 Credit
Development of production coordinator leadership skills. In addition, assisting in all phases of on-location production of second-year student films. Students may assist at nights and weekends.
Prerequisites: FILM 141.
Terms Typically Offered: Spring.
Fees: Yes.

FILM 143 Cinema Lighting 3 Credits
Theoretical examination of cinematic lighting techniques for interior, exterior, and location settings. Analyze cinematic lighting examples to plan, design, and implement their re-creation.
Terms Typically Offered: Spring.
Fees: Yes.

FILM 144 Sound Design for Film 3 Credits
Principles and applications of basic audio recording, location mixing principles, Foley, and sound effects, which enhance soundtracks for media productions.
Terms Typically Offered: Spring.
Fees: Yes.

FILM 145 Commercial & Corporate Video Editing 3 Credits
Basic editing, manipulating and delivery of narrative video. Explore non-linear editing techniques including media management, editing tools, titles, motion control, and transitions.
Fees: Yes.

FILM 150 Episodic Screenwriting 3 Credits
Practical experience of writing realizable television and web series scripts. Emphasis on workshopping a pilot episode and creating the ancillary materials required to produce and market it.
Prerequisites: FILM 130.
Terms Typically Offered: Spring.
Fees: Yes.

FILM 151 Cinematography 3 Credits
Visual storytelling and mastery of the lens. Includes camera operation, lighting techniques, cinematic aesthetics, and other skills to capture stunning visuals and create compelling narratives. Hands-on experience to master the principles of cinematography, explore equipment and technology, and work on practical projects, culminating in the ability to produce professional-quality footage and tell captivating stories through the lens.
Terms Typically Offered: Spring.
Fees: Yes.

FILM 154 Introduction to Animation II 3 Credits
In-depth exploration of traditional animation techniques, equipping students with the expertise needed to create captivating and dynamic animated sequences. Students will be trained in all innovations in digital animation software that reduce workload and allow them to gain an advantage in the digital market.
Prerequisites: FILM 114.
Terms Typically Offered: Spring.
Fees: Yes.

FILM 155 Commercial Audio Design 3 Credits
Principles and application of basic audio recording and mixing principles by enhancing soundtracks for media productions.
Terms Typically Offered: Spring.
Fees: Yes.

FILM 160 Cinema Previsualization 3 Credits
Preproduction development in a digital environment. Includes traditional storyboarding and modern techniques using 3D or photo manipulation software.
Fees: Yes.

FILM 162 Animation Environments and Backgrounds 3 Credits
Crafting of immersive environments for animation. This course focuses on digital drawing techniques to create dynamic backgrounds, emphasizing perspective, lighting, and atmospheric effects. Develop skills in color theory and consistency to enhance storytelling through compelling animated settings.
Terms Typically Offered: Spring.

FILM 164 Character Animation 3 Credits
Exploration of the intricate nuances of bringing animated characters to life, with a strong emphasis on gesture animation, expressive character design, and infusing personality into animated creations. Solid drawing and consistent animation are further built upon as well as design and technique to both teach repetitive and stylistic characters in motion.
Terms Typically Offered: Spring.
Fees: Yes.

FILM 165 Cinema Production Design 3 Credits
Determination of emotional content of artistic choices in set design, locations, props, wardrobe and makeup through script and character analysis techniques, the research and previsualization process, and color theory.
Terms Typically Offered: Spring.
Fees: Yes.

FILM 170 Short-Form Production 3 Credits
Basic techniques and tools of short-form video production. Use of narrative visual storytelling components and expressive visual elements.
Prerequisites: FILM 130.
Terms Typically Offered: Spring.
Fees: Yes.

FILM 171 Animation Shorts 3 Credits
Exploration of fundamental techniques and tools for creating short animated projects. Focus on narrative visual storytelling and the use of expressive, dynamic, visual elements to convey character, mood, and story in short-form animation.
Terms Typically Offered: Spring.

FILM 175 Short-Form Video Editing 3 Credits
Intermediate short-form video editing. Refine workflows and production pipelines, advanced audio integration, transitions, and motion graphics.
Terms Typically Offered: Spring.
Fees: Yes.

FILM 196 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

FILM 200 Directing Film Actors 1 Credit
Processes and techniques of directing film actors. Focus on script interpretation, working with actors, rehearsal, blocking for the camera, preparation for shooting, camera motivation, and dynamics.
Terms Typically Offered: Fall.
Fees: Yes.

FILM 209 Production Budget and Scheduling 3 Credits
Planning, scheduling, and budgeting for film production. Predict, calculate, and estimate insurance requirements, unions, and guilds. Use basic accounting practices to complete a budget and schedule.
Terms Typically Offered: Spring.

FILM 210 Cinema Production Management 3 Credits
Processes and techniques of film and television producing. Predict, calculate, and estimate for insurance requirements, unions and guilds. Use basic accounting practices to complete a budget and schedule.
Terms Typically Offered: Fall.

FILM 211 Short-Form Production II 3 Credits
Techniques and tools of short-form and independent film production. Use of narrative visual storytelling components and expressive visual elements. Emphasis on collaborative production during the various pre-production, production, and post-production stages.
Terms Typically Offered: Spring.
Fees: Yes.

FILM 220 Cinema Audio Design 3 Credits
Advanced cinematic audio recording techniques. Practice location recording, Foley, looping/ADR, sound effects layering, synchronization techniques, and surround sound mixing.
Terms Typically Offered: Fall.
Fees: Yes.

FILM 225 Cinema Capstone I 3 Credits
First part of a two-semester sequence for the Cinema Capstone. Collaborate with Production Design students during a production's preproduction. Create a production's marketing plan.
Terms Typically Offered: Fall.
Fees: Yes.

FILM 226 Technical Capstone I 3 Credits
First part of a two-semester sequence for the Technical Capstone. Collaborate with Writing/Directing students in the preproduction process. Help create a production marketing plan.
Terms Typically Offered: Fall.
Fees: Yes.

FILM 230 Episodic Production 3 Credits
Continuation of collaborative development of advanced learn-by-doing productions. Develop and demonstrate the skills necessary to make effective and successful TV or web series.
Prerequisites: FILM 150.
Terms Typically Offered: Fall.

FILM 240 Digital Cinematic Effects 3 Credits
Digital cinematic effects development in the post-production environment. Analyze style and emotional aesthetic and learn to support story by synthesizing video elements.
Terms Typically Offered: Fall.
Fees: Yes.

FILM 250 Episodic Video Editing 3 Credits
Further exploration of advanced digital editing techniques. Edit a final episodic narrative production. Master collaborative workflows, advanced audio production, and special effects.
Terms Typically Offered: Fall.
Fees: Yes.

FILM 260 Freelancing for Creatives 3 Credits
Examination of self-employment. Explore networking, financing, basic business law, insurance, intellectual property rights, government regulations, time management, record keeping, taxes, and work-life balance.
Terms Typically Offered: Spring.
Fees: Yes.

FILM 264 Multimedia and Special Effects 3 Credits
Exploration of the art of visual storytelling through the creation of multimedia content enriched with digital special effects and innovative techniques. The course covers a wide range of key topics, including: digital special effects, compositing 2D and 3D elements into live-action footage, motion graphics, 3D object import, advanced digital lighting, and advance rendering.
Terms Typically Offered: Fall.
Fees: Yes.

FILM 265 Producing Indie Films 3 Credits
Basic principles to produce independent films. Create a business plan that includes marketing, financing, and distribution and measuring, analyzing, and assessing the industry, box office, markets, and risk factors.
Prerequisites: FILM 209.
Terms Typically Offered: Fall.

FILM 270 Cinema Capstone II 4 Credits
Second part of a two-semester sequence for the Cinema Capstone. Collaborate with Production Design students during shooting, post, and presentation of either a narrative, corporate, or series production.
Prerequisites: FILM 225.
Terms Typically Offered: Spring.
Fees: Yes.

FILM 271 Technical Capstone II 3 Credits
Second part of a two-semester sequence for the Technical Capstone. Collaborate with Writing/Directing students on either a short-form narrative, corporate, or series production.
Prerequisites: FILM 226.
Terms Typically Offered: Spring.
Fees: Yes.

FILM 295 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

FILM 299 Internship 1-2 Credits
Application of classroom theory to on-the-job experiences. Work at approved professional positions related to film and TV production.
Terms Typically Offered: Spring, Summer.

Early Childhood Teaching - Special Ed (ECSE)

Courses

ECSE 320 Learner Development and Individual Differences 3 Credits
Exploration of child development and individual differences to respond to the unique and individualized needs of young children with exceptionalities.
Prerequisites: Admission to the Teacher Education Program.
Terms Typically Offered: Fall.

ECSE 410 Building Family and Community Partnerships 1 Credit
Introduction to the concept of family systems, the impact of children with diverse needs upon the family system, and the role of the educator in partnering with families and the community.
Prerequisites: Admission into the Teacher Education program.

ECSE 430 Instructional Strategies for Inclusion and Intervention, Birth-8 Years 3 Credits
Exploration of evidence-based instructional strategies, focused on communication and sensory processing, to advance learning of young children with exceptionalities.
Prerequisites: EDUC 340, EDUC 374, and ECSE 320.

ECSE 435 Assessment and Evaluation of the Young Child, Birth-8 Years 3 Credits
Exploration and application of technically sound formal and informal assessments that minimize bias, and measurement principles and practices to evaluate and guide educational decisions through collaboration with colleagues and families. Includes a minimum of 20 hours of field experience.
Prerequisites: EDUC 340 and ECSE 320.
Terms Typically Offered: Spring.

ECSE 450 Individual Behavior Support and Guidance with Young Learners 3 Credits
Exploration of behavioral theories and their application to individual and classroom management of young learners, with an emphasis on the principles of applied behavior analysis.
Prerequisites: EDUC 340, EDUC 374, and ECSE 320.
Terms Typically Offered: Fall.

ECSE 493 Senior Capstone 3 Credits
Teaching experience in an inclusive classroom, with opportunities to apply standards-based education, theories, and philosophies acquired in professional education coursework. Provides support in teaching and learning of early childhood students, ages birth - prekindergarten.
Prerequisites: EDEC 256, EDUC 301, EDUC 311, ECSE 320, EDUC 340, and EDUC 343.
Terms Typically Offered: Fall, Spring, Summer.
Course may be taken 2 times for credit.

Economics (ECON)

Courses

ECON 201 Principles of Macroeconomics-GTSS1 3 Credits
Introduction to basic methods of economic analysis and modelling, knowledge of the “language” of economics, and comprehension of the basic principles of supply and demand, inflation, unemployment, economic growth, fiscal policy, monetary policy, and applications to modern economic thought and practice. These economic principles will become apparent in current events, and will be used to interpret/critique real world arguments.
Essential Learning Categories: Social and Behavioral Sciences
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring, Summer.

ECON 202 Principles of Microeconomics-GTSS1 3 Credits
Introduction to basic principles of supply and demand, elasticity of demand, marginal analysis, market structure, pricing and efficiency, consumer, producer, and worker behaviors, and market failures. These economic principles will become apparent in current events, specifically in the areas of taxation, the labor market, externalities, and public goods, and will be used to interpret/critique real world arguments.
Essential Learning Categories: Social and Behavioral Sciences
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring, Summer.

ECON 301 Labor Economics 3 Credits
Survey of market wage and employment determination, wage differentials and discrimination, the value of human capital, and the role of government and unions in the labor market.
Prerequisites: ECON 201 and ECON 202.
Terms Typically Offered: Spring.

ECON 310 Money and Banking 3 Credits
Monetary, credit, and banking systems in the United States. Counts as management course for BBA candidates.
Prerequisites: ECON 201, ECON 202, or equivalent.

ECON 312 Economic History of the United States 3 Credits
Economic development of the United States and the nation's economic institutions from the colonial period to the present.
Prerequisites: ECON 201, ECON 202 or HIST 131, HIST 132, or permission of instructor.

ECON 320 History of Economic Ideas 3 Credits
Development of economic analysis, thought, theories, and doctrines from the ancient world to recent times.
Prerequisites: ECON 201, ECON 202, or equivalent.

ECON 342 Intermediate Macroeconomic Theory 3 Credits
Factors determining the level and rate of growth of GDP, the inflation rate, and the employment rate. Policies that have been (or may be) used to influence these variables, and empirical evidences on the relationships among variables are also studied.
Prerequisites: ECON 201, ECON 202, or equivalent, or permission of instructor.

ECON 343 Intermediate Microeconomic Theory 3 Credits
Problems of resource scarcity in a market economy. Emphasis is placed on an analysis of resource allocation under different forms of competition. Covers theory of the firm, theories of market structure, efficiency, equity, and the application of public policy.
Prerequisites: ECON 201, ECON 202, and MATH 113.
Terms Typically Offered: Spring.

ECON 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

ECON 396 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ECON 401 Economic Organization and Public Policy 3 Credits
Political economy of economic organization and public policy including analysis of the structure/conduct dimensions of industry and government institutions and their effects on resource allocation, income distribution, and economic performance. Antitrust, regulation, and other policies are treated concurrently. Counts as a management course for BBA candidates.
Prerequisites: ECON 201, ECON 202 or equivalent.

ECON 410 Public Sector Economics 3 Credits
Political economy of government finance including analysis of the effects of government revenue and expenditure policies on resource allocation, income distribution, and economic performance. Counts as a management course for BBA candidates.
Prerequisites: ECON 201, ECON 202, or equivalent.

ECON 415 Econometrics 3 Credits
Application of advanced statistical methods to economic and business problems. Includes multiple regression analysis. Sophisticated cross sectional models such as instrumental variable, probit, and tobit.
Time series topics such as forecasting, autoregressive models, vector autoregressions, cointegration, and some panel methods.
Prerequisites: CISB 341 and ECON 201.

ECON 420 International Economics 3 Credits
International trade theory and policy such as balance of payments analysis, international investment flows, and the position of the dollar in foreign exchange transactions.
Prerequisites: ECON 201, ECON 202, or equivalent.

ECON 495 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

ECON 496 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ECON 505 Advanced Econometrics 3 Credits
Application of advanced statistical methods to economic and business problems. Includes multiple regression analysis. Sophisticated cross sectional models such as instrumental variable, probit, and tobit.
Time series topics such as forecasting, autoregressive models, vector autoregressions, cointegration, and some panel methods. Demonstration of mastery of material through graduate level projects, writing, and presentations.
Prerequisites: CISB 341 and ECON 201.

ECON 530 Managerial Economics 3 Credits
Application of economic theory and its tools to everyday business activities. Topics to be covered include: the analytical tools of economics, macro and micro economic theory, and factors that influence demand.
Terms Typically Offered: Fall.

Education (EDUC)

Courses

EDUC 115 What It Means To Be An Educator 1 Credit
Overview of the teacher education program, profession, and what it means to be an educator. Introduction to social, legal, historical, political, theoretical, and philosophical foundations of education. Course time will include school and educational services visitations. Includes a minimum of 8 hours of field experience.
Prerequisites: ENGL 111.
Terms Typically Offered: Fall, Spring, Summer.

EDUC 196 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

EDUC 215 Teaching as a Profession 1 Credit
Overview of the teacher education program and profession. Introduction to schools, curriculum and instruction, accountability, learning environments, developing professionalism, and theoretical and philosophical foundations of education. Course time will include school and educational services visitations. Includes a minimum of 12 hours of field experience.
Prerequisites: EDUC 115.
Terms Typically Offered: Fall, Spring, Summer.

EDUC 301 Emergent Literacy for Early Childhood 3 Credits
Exploration of principles, methods, and materials for teaching young children language and literacy through a play-based integrated curriculum from birth to kindergarten. Survey of current research in emergent language and literacy including language development and acquisition, family and community roles, teaching and learning strategies, literature in the curriculum and ongoing assessment. Includes a minimum of 20 hours of field experience.
Prerequisites: EDUC 340 and Admission to Teacher Education Program.

EDUC 311 Creative and Physical Expressions for Children 3 Credits
Facilitation of children's creative and physical expression and problem solving in music, art, drama, games, movement, and dance.
Prerequisites: Admission to the Teacher Education Program.

EDUC 340 Pedagogical and Assessment Knowledge for Teachers: Early Childhood, Birth - 8 years 3 Credits
Exploration of age/grade level teaching strategies, motivation principles, informal and formal assessments, planning strategies, and classroom management techniques. Includes a minimum of 20 hours of field experience.
Prerequisites: Admission to the Teacher Education Program or permission of instructor.

EDUC 341 Pedagogy and Assessment: K-6/Elementary 3 Credits
Exploration of age/grade level teaching strategies, motivation principles, informal and formal assessments, planning strategies, and classroom management techniques. Includes a minimum of 20 hours of field experience.
Prerequisites: Admission to the Teacher Education Program.
Corequisites: EDUC 343.

EDUC 342 Pedagogy and Assessment: Secondary and K-12 3 Credits
Exploration of age/grade level teaching strategies, motivation principles, informal and formal assessments, planning strategies, and classroom management techniques. Includes a minimum of 20 hours of field experience.
Prerequisites: Admission to the Teacher Education Program.
Corequisites: EDUC 343.

EDUC 343 Teaching to Diversity 3 Credits
Study of differences in student development and approaches to learning. Addresses ethnic, linguistic, gender, sexuality, socioeconomic, ability/disability, and community diversity. Includes a minimum of 20 hours of field experience.
Prerequisites: Admission to the Teacher Education Program.
Corequisites: EDUC 340 or EDUC 341 or EDUC 342.

EDUC 374 Exceptional and English Language Learners in the Inclusive Classroom 3 Credits
Study of exceptionalities and English Language Learner (ELL) characteristics. The use of strategies for identifying, adapting, accommodating, and/or modifying the learning environment to meet the various needs. Includes intellectually challenged, learning disabled, social/emotional disorders, physically disabled, gifted, and English language learners.
Prerequisites: EDUC 343 with a grade of "B" or higher or may be taken concurrently with EDUC 340.
Terms Typically Offered: Fall.

EDUC 378 Technology for K-12 Educators 1 Credit
Digital technology's role in the teaching/learning process. Engaging technology in the classroom. Topics include New Literacies, Web 2.0 tools, e-books, interactive presentation tools, et al.
Prerequisites: Admission to Teacher Education Program.

EDUC 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

EDUC 396 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

EDUC 440 Methods of Teaching Language and Literacy: EC 3 Credits
Survey of current research in early/emergent language and literacy, including language development and acquisition, family and community roles, teaching and learning strategies, literature in the curriculum, and ongoing assessment in instruction. Includes a minimum of 40 hours of field experience.
Prerequisites: Admission to the Teacher Education Program; EDUC 340 or EDUC 341.
Terms Typically Offered: Fall, Spring.

EDUC 441 Methods of Teaching Language and Literacy: Elementary 3 Credits
Exploration of student literacy development in multiple literacies, with a focus in fluency and comprehension. Study and application of instructional strategies for the reading/writing processes, vocabulary development, spelling development, comprehension strategies, reading and writing workshops, literacy assessment, and integration across the content areas. Field placements will be in a lab school environment for two mornings of school per week. Includes a minimum of 80 hours field experience.
Prerequisites: Admission to the Teacher Education Program, EDUC 340 and/or EDUC 341 and EDUC 343.
Corequisites: EDUC 471.

EDUC 442 Integrating Literacy Across the Curriculum: Secondary and K-12 Art 3 Credits
Exploration of multiple forms of student literacies. Study and application of instructional strategies for various literary genres across the middle school and high school curriculum with a focus in philosophical and theoretical perspectives from multicultural texts. Candidates develop a fully integrated unit to implement in field study. Includes a minimum of 60 hours of field experience.
Prerequisites: Admission to the Teacher Education Program, EDUC 342, and EDUC 343.
Terms Typically Offered: Fall, Spring.

EDUC 451 Methods of Teaching Mathematics: Early Childhood/ Elementary 3 Credits
Prepares students to teach mathematics to elementary age students. Focus on major concepts, procedures, and reasoning processes that define number systems and number sense, geometry, measurement, statistics and probability, and algebra. Theoretical and practical approaches support learning about standards, content, delivery, and assessment. Field placements will be in a lab school environment for three afternoons of school per week. Includes a minimum of 60 hours of field experience.
Prerequisites: Admission to the Teacher Education Program, EDUC 340 and/or EDUC 341, EDUC 343, MATH 105, MATH 205, and MATH 301.
Corequisites: EDUC 471.

EDUC 461 Methods of Teaching Science and Social Studies: Early Childhood/Elementary 3 Credits
Study and application of content standards in science, health, civics, geography, history, and economics for elementary age students. Develops teaching proficiency and an understanding of integration of these subjects across the content areas. Field experiences are incorporated into the math/literacy block during three school days per week.
Prerequisites: Admission to the Teacher Education Program, EDUC 340 and/or EDUC 341, EDUC 343.
Corequisites: EDUC 471.

EDUC 471 Educational Assessment for the K-12 Educator 1 Credit
Current principles of assessment in the K-12 classroom. Includes selecting, developing, and evaluating a variety of assessment methods/types in the various content areas. Discuss how to analyze, interpret, and communicate assessment results with administrators, families, and students for the purposes of making instruction/curricular decisions.
Prerequisites: EDUC 341 or EDUC 342, and EDUC 343.
Corequisites: EDUC 441, EDUC 451, EDUC 461, or permission of instructor.

EDUC 475 Classroom Management for K-12 Educators 1 Credit
Effective classroom management. Establish productive classroom climate. Applications of management techniques to help students become responsible for their behaviors and choices. Student motivation, positive student-teacher relationships, effective partnerships between parents and school. Includes strategies to minimize and prevent classroom and behavior management problems as well as time management techniques.
Prerequisites: EDUC 342 or EDUC 440.
Terms Typically Offered: Fall, Spring.

EDUC 480 Methods and Topics in Secondary Teaching 3 Credits
Theory and practice of differentiated instruction, assessment, data-based instruction, and lesson design and implementation. Discussion of issues related to teaching and curriculum design, as well as a focus on the improvement of teaching methodology across the curriculum. Includes a minimum of 80 hours of field experience.
Prerequisites: Admission to the Teacher Education Program, EDUC 342, and EDUC 343.
Corequisites: EDUC 442 and EDUC 475.
Terms Typically Offered: Fall, Spring.

EDUC 480A Methods of Teaching Secondary English 2 Credits
Theory and practice of teaching English language arts in middle and high schools. Current strategies, programs, materials, and media for the development of curriculum in reading comprehension, language, linguistics, comprehension, and rhetoric. Lesson preparation and presentation required.
Prerequisites: Admission to Teacher Education Program.
Terms Typically Offered: Fall.

EDUC 480B Methods of Teaching Secondary Social Studies 2 Credits
Theory and practice of teaching history and the social sciences in middle and high schools. Current strategies, programs, materials, and media for the development of curriculum in United States history, world history, government, civics, political science, geography, economics, and behavioral science. Lesson preparation and presentation required.
Prerequisites: Admission to Teacher Education Program.
Terms Typically Offered: Fall.

EDUC 480C Methods of Teaching Secondary Mathematics 2 Credits
Theory and practice of teaching mathematics in middle and high schools. Current strategies, programs, materials, and media for the development of curriculum in arithmetic, basic algebra, functions, graphing, probability, statistics, and integrated math. Lesson preparation and presentation required.
Prerequisites: Admission to the Teacher Education Program.
Terms Typically Offered: Fall.

EDUC 480D Methods of Teaching Secondary Science 2 Credits
Theory and practice of teaching science in middle and high schools. Current strategies, programs, materials, and media for the development of curriculum in: scientific methodology, techniques, and history; physical, life, and earth sciences; and science and technology. Lesson preparation and presentation required.
Prerequisites: Admission to Teacher Education Program.
Terms Typically Offered: Fall.

EDUC 480E Methods of Teaching Secondary Spanish 2 Credits
Theory and practice of teaching Spanish in middle and high schools. Current strategies, programs, materials, and media for the development of curriculum in: interpretive listening, structure of the language and grammatical accuracy, interpretive reading, and cultural perspectives. Lesson preparation and presentation required.
Prerequisites: Admission to Teacher Education Program.
Terms Typically Offered: Fall.

EDUC 495 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

EDUC 496 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

EDUC 499A Teaching Internship and Colloquia: K-2 12 Credits
Full-time supervised teaching experience for at least sixteen weeks in an inclusive K-2nd grade classroom designed to allow the intern the opportunity to apply standards-based education and theories and philosophies acquired in professional education coursework. Provides support in teaching and learning of diverse K-2 students.
Prerequisites: All program and degree requirements must be successfully completed.
Terms Typically Offered: Fall, Spring.

EDUC 499B Teaching Internship and Colloquia: 3-6 6 Credits
Available for students who are pursuing ECE/ELED licensure and standards-based education: an eight-week experience. Colloquiums are included and required.
Prerequisites: Formal admission to the Teacher Education Program; EDUC 340 and/or EDUC 341, EDUC 343, EDUC 440 and/or EDUC 441, EDUC 451; all other course work for bachelor's degree completed; 2.75 cumulative GPA as well as 2.75 GPA in major and 2.75 GPA in EDUC classes.

EDUC 499C Teaching Internship and Colloquia: Elementary 12 Credits
Full-time (40 hrs min/week) supervised teaching experience designed to allow the intern the opportunity to apply standards-based education and theories and philosophies acquired in professional education coursework. Three required colloquia on Thursday evenings are included during this 15-week experience. Students must begin internship a minimum of one week prior to the beginning of the district school semester, regardless of the Colorado Mesa University start date.
Prerequisites: Formal admission to the Teacher Education Program; EDUC 341, EDUC 343, EDUC 441, EDUC 451, EDUC 461 and all other course work for bachelor's degree completed; as well as 2.8 GPA in major and 2.8 GPA in EDUC classes.

EDUC 499D Teaching Internship and Colloquia: Elementary for K-12 6 Credits
Full-time (40 hrs min/week) supervised teaching experience designed to allow the intern the opportunity to apply standards-based education and theories and philosophies acquired in professional education coursework. Required colloquia on Thursday evenings are included during this eight-week experience.
Prerequisites: Formal admission to the Teacher Education Program; EDUC 342, EDUC 343, EDUC 441 (except Music and Kinesiology majors); appropriate content area methods course/s; all other coursework for bachelor's degree completed; 2.8 cumulative GPA as well as 2.8 GPA in major and 2.8 GPA in EDUC classes.
Corequisites: EDUC 499H.

EDUC 499G Teaching Internship and Colloquia: Secondary 12 Credits
Full-time (minimum 40 hours/week) supervised teaching experience designed to allow the intern the opportunity to apply standards-based education and theories and philosophies acquired in professional education coursework. Students must begin internship with the school district semester, regardless of the Colorado Mesa University start date.
Prerequisites: Formal admission to the Teacher Education Program; EDUC 342, EDUC 480; all other course work for bachelor's degree completed; 2.8 cumulative GPA, as well as 2.8 GPA in major.
Terms Typically Offered: Fall, Spring.

EDUC 499H Teaching Internship and Colloquia: Secondary for K-12 6 Credits
Supervised teaching experience at the secondary level for students who are pursuing K-12 licensure and standards-based education. Several colloquia are included in the eight-week experience.
Prerequisites: Formal admission to the Teacher Education Program; EDUC 342, EDUC 343, EDUC 442 (except Music and Kinesiology majors); appropriate content area methods course/s; all other course work for bachelor's degree completed; 2.75 cumulative GPA as well as 2.75 GPA in major and 2.75 GPA in EDUC classes.

EDUC 500 Culture and Pedagogy 3 Credits
Pedagogy that explores the relationships between culture and learning, as well as teacher ideology and belief systems. Examines critical pedagogy, pedagogies of resistance, and teaching for social justice.
Prerequisites: Current teaching certificate and acceptance into M.A. program.
Terms Typically Offered: Summer.

EDUC 501 Educational Technology 2 Credits
Historical and conceptual analyses of ways to design, organize, and integrate curricula across subject areas. Review of various instructional design models and fundamental design principles that guide the development of instructional materials. Critique of curriculum discourse, process, and product. Teachers' roles in site-based curriculum and staff development.
Terms Typically Offered: Fall.

EDUC 502 Theory, Design & Assessment of Curriculum 3 Credits
Introduction to instructional design; production and evaluation of computer-based instructional materials and software; selection, evaluation, and use of instructional media.

EDUC 503 Introduction to Educational Research and Design 3 Credits
An analysis of differing orientations to evaluation and research. Emphasis on assumptions, attitudes, and expectation of what constitutes scientific knowledge and explanation; relationship of research orientation, methods of inquiry theory, and practice in both qualitative and quantitative research strategies.
Prerequisites: Current teaching certificate, acceptance into M.A. program, GRE.

EDUC 521 Educational Foundations, Student Development, and Ethics 3 Credits
Introduction to the history of education in the United States through exploration of the ideologies and theoretical frameworks. The course provides students with a foundation in the concepts, theories and principles that support student development, behavior and learning in educational settings. Emphasis is placed on developing professional responsibilities and ethical conduct that supports a learning environment.
Prerequisites: Acceptance into the ITL graduate program.
Terms Typically Offered: Spring, Summer.

EDUC 562 Curriculum, Instruction, and Assessment 6 Credits
Examination of the science of learning and the impact that compatible instruction has on learning, instruction, and classroom management. Students in the course analyze how learning theories, practices, and research-based strategies can support the development of effective curriculum, instruction, and assessment to promote student success.
Prerequisites: Acceptance into the ITL graduate program.
Terms Typically Offered: Summer.

EDUC 570 Classroom Management 1 Credit
Applications of advanced classroom management techniques to help students become responsible for their behaviors and choices. Includes student motivation, positive student-teach relationships, and effective partnerships between parents and school. Includes strategies to minimize and prevent classroom and behavior management problems, as well as time management techniques.
Prerequisites: EDUC 521, EDUC 562, and EDUC 586.
Terms Typically Offered: Fall.

EDUC 578 Elementary Reading and Language Arts Theory and Methodology K-6 3 Credits
Advanced exploration in designing, developing, implementing and assessing well-aligned, well-differentiated, discipline specific curricula, instruction, assessments and accommodations related to developmental, gender, bilingual, special education unique to K-6 Literacy Education. Field placements will be in a lab school environment for three days of school per week. Includes a minimum of 80 hours of field experience.
Prerequisites: EDUC 521, EDUC 562, and EDUC 586.
Terms Typically Offered: Fall.

EDUC 580 Secondary Instructional Methods Across the Curriculum 3 Credits
Advanced theory and practice of differentiated instruction, lesson study design and implementation. Advanced curriculum design, teaching methodology across the curriculum.
Prerequisites: EDUC 521, EDUC 562, and EDUC 586.
Terms Typically Offered: Fall.

EDUC 580A Secondary Instructional Methods for English Language Arts 2 Credits
Advanced theory and practice of teaching English language arts in middle and high schools. Current strategies programs, materials, and media for the development of curriculum in reading comprehension, language, linguistics, and rhetoric.
Prerequisites: EDUC 521, EDUC 562, and EDUC 586.
Terms Typically Offered: Fall.

EDUC 580B Secondary Instructional Methods for Social Studies 2 Credits
Advanced theory and practice of teaching history and the social sciences in middle and high schools. Current strategies, programs, materials, and media for the development of curriculum in United States history, world history, government, civics, political science, geography, economics, and behavioral science.
Prerequisites: EDUC 521, EDUC 562, and EDUC 586.
Terms Typically Offered: Fall.

EDUC 580C Secondary Instructional Methods for Mathematics 2 Credits
Advanced theory and practice of teaching mathematics in middle and high schools. Current strategies, programs, materials, and media for the development of curriculum in arithmetic, basic algebra, functions, graphing, probability, statistics, and integrated math.
Prerequisites: EDUC 521, EDUC 562, and EDUC 586.
Terms Typically Offered: Fall.

EDUC 580D Secondary Instructional Methods for Science 2 Credits
Advanced theory and practice of teaching science in middle and high schools. Current strategies, programs, materials, and media for the development of curriculum in: scientific methodology, techniques, and history; physical, life, and earth sciences; and science and technology.
Prerequisites: EDUC 521, EDUC 562, and EDUC 586.
Terms Typically Offered: Fall.

EDUC 580E Secondary Instructional Methods for Spanish 2 Credits
Advanced theory and practice of teaching Spanish in middle and high schools. Current strategies, programs, materials, and media for the development of curriculum in: interpretive listening, structure of the language and grammatical accuracy, interpretive reading, and cultural perspectives.
Prerequisites: EDUC 521, EDUC 562, and EDUC 586.
Terms Typically Offered: Fall.

EDUC 580F Secondary Instructional Methods for Physical Education 3 Credits
Advanced theory and practice of instructional strategies on a practical application level for prospective secondary physical education teachers preparing for entry into student teaching. Current strategies, programs, materials, and media for the development of curriculum in physical education in secondary classrooms.
Prerequisites: EDUC 521, EDUC 562, and EDUC 586.
Terms Typically Offered: Fall.

EDUC 584 Secondary Literacy Methods Across the Curriculum 3 Credits
Advanced exploration of multiple forms of student literacies. Study and application of reading and comprehension strategies for literacy instruction in middle school and high school content areas. Candidates develop a fully integrated unit to implement in field study. This course includes a minimum of 200 field hours.
Prerequisites: EDUC 521, EDUC 562, and EDUC 586.
Terms Typically Offered: Fall.

EDUC 585 Elementary Integrated Science, Social Studies, and Art Theory and Methodology K-6 3 Credits
Advanced study and application of content standards in science, art, civics, geography, history, and economics for elementary age students. Develops teaching proficiency and an understanding of integration of these subjects across the content areas. Field placements will be in a lab school environment for three days of school per week. Includes a minimum of 40 hours of field experience.
Prerequisites: EDUC 521, EDUC 562, and EDUC 586.
Terms Typically Offered: Fall.

EDUC 586 Accommodating Diverse and Exceptional Needs 3 Credits
Designing, developing, implementing and assessing the effectiveness of instruction differentiated for relevant student diversity and exceptionalities; teaming with specialists; current state and federal guidelines and mandates.
Terms Typically Offered: Summer.

EDUC 588 Elementary Mathematics Theory and Methodology K-6 3 Credits
Advanced exploration in designing, developing, implementing, and assessing well-aligned, well-differentiated, discipline-specific curriculum, instruction, assessments and accommodations unique to K-6 Math Education. Field placements will be in a lab school environment for three days of school per week. Includes a minimum of 80 hours of field experience.
Prerequisites: EDUC 521, EDUC 562, and EDUC 586.
Terms Typically Offered: Fall.

EDUC 595 Topics in Teaching 0.5-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

EDUC 596 Topics in the Content Areas 0.5-4 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

EDUC 599A ITL 3: Directed Teaching: Elementary Education 9 Credits
Continued, full-time, mentored elementary school placement to develop independent professional competence in instructional design, implementation and assessment. Students will document having had a positive effect on student learning across 15 weeks of full-time, independent teaching from January to May. Two colloquia are an integral part of the experience requirement.
Prerequisites: EDUC 521, EDUC 562, EDUC 578, EDUC 585, EDUC 586, and EDUC 588.
Terms Typically Offered: Spring.

EDUC 599B ITL 3: Directed Teaching: Secondary Education 9 Credits
Continued, full-time, mentored secondary school placement to develop independent professional competence in instructional design, implementation and assessment. Students will document having had a positive effect on student learning, across 15 weeks of full-time, independent teaching from January to May. Two colloquia are an integral part of the experience requirement.
Prerequisites: EDUC 521, EDUC 562, EDUC 570, EDUC 580, EDUC 584, EDUC 586, and one of the following: EDUC 580A, EDUC 580B, EDUC 580C, EDUC 580D, or EDUC 580E.
Terms Typically Offered: Spring.

EDUC 599C ITL 3: Directed Teaching, Physical Education 9 Credits
Continued, full-time, mentored Physical Education placement to develop independent professional competence in instructional design, implementation, and assessment. Students will document having had a positive effect on student learning, across 16 weeks of full-time independent teaching from January to May, consisting of one 8-week elementary placement and one 8-week secondary placement. One colloquium is an integral part of the experience requirement.
Prerequisites: EDUC 521, EDUC 562, EDUC 580, EDUC 580F, EDUC 584, and EDUC 586.
Terms Typically Offered: Spring.

EDUC 600 Master's in Education Capstone 1 Credit
Synthesis of graduate work that demonstrates a critical connection between theory and practice. Students take a scholarly approach to researching a topic, reviewing literature, and making connections to educational practice. The Capstone project culminates in formal written work and an oral presentation.
Prerequisites: EDUC 503.
Terms Typically Offered: Fall, Spring, Summer.

Education - Career/Tech (EDUT)

Courses

EDUT 250 Career and Technical Education in Colorado 1 Credit
Explores common elements of Career and Technical Education philosophy and current practices. It details the philosophy of Career and Technical Education (CTE), the federal Carl D. Perkins legislation and related guidelines for CTE, the Colorado Technical Act, national and state regulatory agencies, the CCCS program approval process, enrollment management and advising strategies, relevant local and national issues, and quality assurance principles.

EDUT 251 Secondary CTE Capstone 3 Credits
This capstone course in the secondary CTE credentialing sequence offers an in-depth analysis of secondary career and technical student organizations and competitions, the Colorado Technical Act, working with exceptional students, creating and effectively deploying program advisory committees, and an overview of educational and political systems in Colorado. The final project is an analysis of the efficiency with which one's employing school district funds, operates and assesses CTE programs.

EDUT 260 Adult Learning and Teaching 3 Credits
Examines the philosophy of community colleges and/or secondary schools and the roles and responsibilities of the faculty member within the college/school community. Introduces basic instructional theories and applications, with particular emphasis on adult learners. Includes syllabus development, learning goals and outcomes, and lesson plans. Emphasizes teaching to a diverse student body, classroom management, assessment and instructional technology.

EDUT 288 Practicum II 1 Credit
Provides students with the opportunity to supplement coursework with practical work experience related to their educational program. Students work under the immediate supervision of experienced personnel at the education facility and with the direct guidance of the instructor.

EDUT 289 Capstone 1 Credit
Focuses on a demonstrated culmination of learning within a given program of study.

Education - Leadership (EDTL)

Courses

EDTL 513 Information Based Educational Practice and Statistics 3 Credits
Exploration of standards-based educational practice. Analysis and interpretation of data as they inform educational practice. Data Driven Dialogues implemented as catalysts for educational change. Development of skills necessary to observe, analyze, and evaluate data from a multiple measures perspective. Foundational uses of educational statistics applied.

Education - Special Ed (EDSE)

Courses

EDSE 496 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

EDSE 500 Foundation of Special Education Including Law 3 Credits
Knowledge and skills needed in special education. An evolving discipline based on philosophies, evidence-based principles and theories, relevant laws and policies, diverse and historical viewpoints, and societal influences on the education and treatment of individuals with exceptional needs.
Terms Typically Offered: Summer.

EDSE 501 Instructional Strategies in Special Education 3 Credits
Overview of methodologies used in the instruction of students with special learning needs. Explores the purpose of an Individualized Education Program and its use as a guide in the development of a learning plan based on the student's learning characteristics including strengths, needs, and the impact of disability on his/her learning in the general education classroom.

EDSE 502 Behavioral Interventions for the Learner with Special Needs 3 Credits
Focuses on research-based assessment and intervention strategies for working with students who present challenging behavior in the classroom.

EDSE 503 Methods of Teaching Students with Mild Disabilities Reading and Math 3 Credits
Provides an understanding of the nature of reading and arithmetic and of challenges faced by children and adolescents with a wide array of exceptionalities. Major approaches to teaching and learning in reading and math. Development of diagnostic-prescriptive approaches.

EDSE 506 Educating Students with Low Incidence Disabilities in Inclusive Environments 3 Credits
Examines types of low-incidence disabilities, including mental retardation, autism, physical disabilities, traumatic brain injury, deafness, blindness, multiple disabilities, and other health impairments, that affect academic and job performance. Current methods for teaching individuals with low-incidence disabilities.

EDSE 510 The Learner Who is Twice Exceptional, Including Gifted and Talented 3 Credits
Provides tools to identify twice exceptional students and selection appropriate strategies so that gifted students with disabilities can learn at appropriate levels.

EDSE 515 Internship K-6 Elementary Practicum in Special Education 3 Credits
Provides support in teaching and learning of elementary students. Integrated field supervision to achieve professional competencies.

EDSE 520 Internship 6-12 Secondary Practicum in Special Education 3 Credits
Provides support in teaching and learning of secondary students. Integrated field supervision to achieve professional competencies.

EDSE 596 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Education - Early Child (EDEC)

Courses

EDEC 100A Parent Education and Infants 1 Credit
Parenting skills in a child care setting. Introduction to stages of child development, best practices in parenting, and resources for children 1 to 18 months old. Emphasis on development, effective communication, discipline, age appropriate learning activities, and school readiness. Requirement: Enrollment of child in campus early childhood program. Parents spend 30 minutes a week in their child's classroom.
Terms Typically Offered: Fall, Spring, Summer.
Course may be taken 2 times for credit.

EDEC 100B Parent Education and Toddlers 1 Credit
Parenting skills in a child care setting. Introduction to stages of child development, best practices in parenting, and resources for children 18 to 36 months old. Emphasis on development, effective communication, discipline, age appropriate learning activities, and school readiness. Requirement: Enrollment of child in campus early childhood program. Parents spend 30 minutes a week in their child's classroom.
Terms Typically Offered: Fall, Spring, Summer.
Course may be taken 3 times for credit.

EDEC 100C Parent Education and Early Preschool 1 Credit
Parenting skills in a child care setting. Introduction to stages of child development, best practices in parenting, and resources for children 3 to 4 years old. Emphasis on development, effective communication, discipline, age appropriate learning activities, and school readiness. Requirement: Enrollment of child in campus early childhood program. Parents spend 30 minutes a week in their child's classroom.
Terms Typically Offered: Fall, Spring, Summer.
Course may be taken 3 times for credit.

EDEC 100D Parent Education and School Readiness 1 Credit
Parenting skills in a child care setting. Introduction to stages of child development, best practices in parenting, and resources for children entering kindergarten. Emphasis on development, effective communication, discipline, age appropriate learning activities, and school readiness. Requirement: Enrollment of child in campus early childhood program. Parents spend 30 minutes a week in their child's classroom.
Terms Typically Offered: Fall, Spring, Summer.
Course may be taken 3 times for credit.

EDEC 101 Introduction to Early Childhood 3 Credits
Introduction to the profession of Early Childhood Education. Includes key areas of professional knowledge related to working with young children and their families in early care and education settings: child growth and development; health, nutrition, and safety; developmentally appropriate practices; guidance; family and community relationships; diversity and inclusion; professionalism; and administration and supervision. Addresses children ages birth through 8 years.
Terms Typically Offered: Fall, Spring, Summer.
Fees: Yes.

EDEC 102 Introduction to Early Childhood Professions Lab Experiences 3 Credits
Classroom seminar and placement in a childcare setting. The supervised placement provides the student with the opportunity to observe children, practice appropriate interactions, and develop effective guidance and management techniques. Addresses ages birth through age 8. 60 hours of lab placement.
Prerequisites: EDEC 101.
Terms Typically Offered: Spring, Summer.

EDEC 103 Guidance Strategies 3 Credits
Exploration of guidance theories, techniques, and practices used to address repeated patterns of child behavior that interfere with a young child's ability to learn and engage in prosocial interactions with peers and adults. Covers factors that influence children's behaviors and aspects of early childhood educator professionalism related to ethical and equitable guidance practice. Addresses children ages birth through 8 years.
Terms Typically Offered: Fall, Spring, Summer.
Fees: Yes.

EDEC 113 Infant and Toddler Theory and Practice 3 Credits
Overview of development and care pertinent to infant and toddler children, ages birth to three years, in early childhood settings. The course includes information on state requirements for regulating health, safety, and nutrition practices in early childhood settings, and on indicators of quality care for infants and toddlers.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

EDEC 114 Introduction to Infant/Toddler Lab Techniques 3 Credits
Classroom seminar and placement in an infant and/or toddler setting. The supervised placement provides the student with the opportunity to observe, practice appropriate interactions, and develop effective guidance and nurturing techniques with infants and/or toddlers. Addresses ages prenatal through age 2. Assignments include a required field experience of 60 hours.
Prerequisites: EDEC 101 or EDEC 113.
Terms Typically Offered: Fall, Spring.

EDEC 122 Ethics in Early Childhood Education 1 Credit
Practical approach to recognizing, understanding, and resolving issues confronting professionals in education and business. Application of critical thinking and decision-making skills to ethical dilemmas. Exploration of methods of resolution through ethical reasoning and the National Association for the Education of Young Children (NAEYC) professional codes. Emphasizes logical analysis, critical thinking, and responsible ethical decision making.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

EDEC 125 Science/Math and the Young Child 3 Credits
Examination of theories of cognitive development as a framework for conceptualizing the way young children acquire scientific and mathematical skills, concepts, and abilities. Enables students to research and develop appropriate individual and group scientific/mathematical activities for young children.
Terms Typically Offered: Fall, Spring.

EDEC 126 Art and the Young Child 2 Credits
Preparation to plan and implement a comprehensive and developmentally appropriate art program for young children. Investigates the development of self-taught art techniques in young children.
Terms Typically Offered: Fall.

EDEC 127 Music/Movement for the Young Children 1 Credit
Exploration of the purposes of incorporating music and movement into the early childhood curriculum. Through active participation with hands-on experiences, students work with the concepts of age and developmental appropriateness when designing fun activities with both subjects.
Terms Typically Offered: Fall.

EDEC 195 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

EDEC 196 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

EDEC 200 Observation and Assessment in Early Childhood Education 2 Credits
Focus on developmentally appropriate observation and assessment strategies to document child development, play, and learning to support families and professionals in promoting children's success, as well as to document quality indicators in early childhood programs. A variety of formal and authentic assessment methods are explored in this course. This course addresses children ages birth to eight years.
Terms Typically Offered: Fall, Spring.

EDEC 201 Observation and Assessment in Early Childhood Techniques 1 Credit
Supervised placement in licensed early childhood settings. Formal and authentic assessment methods are explored within early care and education settings, including practicing developmentally appropriate observation and assessment techniques to document child development, play, and learning to help families and professionals promote children's success. Program evaluation assessment tools are covered. This course addresses children ages birth to eight years.
Terms Typically Offered: Fall, Spring.

EDEC 205 Nutrition, Health, Safety 3 Credits
Exploration of nutrition, health, and safety as key factors for optimal growth and development of young children. Includes nutrient knowledge, menu planning, food program participation, health practices, management and safety, appropriate activities, and communication with families. Addresses birth through age 8. Assignments require 3 hours of field experience and may include observation/participation in an early childhood setting.
Terms Typically Offered: Fall.

EDEC 230 Curriculum and Development: Infant/Toddler 3 Credits
Examination of the curriculum for the age group birth to 3 years. Emphasis on maintaining healthy, safe environmental activities developmentally appropriate to stimulate language, social emotional, cognitive, and physical development. Assignments require 3 hours of field experience and may include observation/participation in an early childhood setting.
Terms Typically Offered: Spring.

EDEC 237 Theories and Techniques of Social and Emotional Growth 3 Credits
Incorporation of student-specific techniques and strategies for guiding and enhancing social and emotional growth in children 0-8 years. Introduces and compares the theories underlying quality interactions and patterns of social and emotional progression.
Terms Typically Offered: Spring.

EDEC 238 Early Childhood Development 0-8 Years 3 Credits
Exploration of theories, current research, and developmental ages and stages of children, from conception to 8 years. Emphasizes physical, cognitive, language, social, and emotional domains, the concept of the whole child, and how adults can provide a supportive environment. Assignments require 3 hours of field experience and may include observation/participation in an early childhood setting.
Terms Typically Offered: Fall, Spring.

EDEC 240 Curriculum and Development: Early Childhood 3 Credits
Methods of creating and implementing a curriculum based on the understanding of developmentally appropriate practice for children, from birth to age 8. Application of the teaching/learning process, and of managing the learning environment, will draw from research and practical application. Assignments require 3 hours of field experience and may include observation/participation in an early childhood setting.
Prerequisites: EDEC 101.
Terms Typically Offered: Fall, Spring.

EDEC 241 Early Childhood Administration: Human Relations 3 Credits
Examination of the roles and relationships among children, families, early childhood professionals, and community resources. Exploration of family structures, communication skills, roles of support organizations, team building, evaluation tools, self-reflection, and advocacy. Assignments require 3 hours of field experience and may include observation/participation in an early childhood setting.
Terms Typically Offered: Fall.

EDEC 250 Exceptionalities in Early Education 3 Credits
Overview of critical elements related to educating young children who have diverse development. Topics include: typical and atypical development, legal requirements, research-based practices related to inclusion, teaming, and collaboration. Exploration of different development in relation to cognitive/social/physical abilities and the impact on the learning process. Includes conception to age 8. Assignments include observation/participation in an early childhood setting.
Prerequisites: EDEC 101.
Terms Typically Offered: Fall, Spring.

EDEC 256 Working with Parents, Families, and Community Systems 3 Credits
Exploration of personal attitudes regarding families, family values systems, and how personal attitudes affect parent-professional partnerships in the early childhood education program. This course covers communication, problem-solving, and conflict resolution strategies with respect to children ages birth through 8 years. Effective activities and resources to support family involvement in the classroom will be created.
Terms Typically Offered: Fall, Spring.

EDEC 264 Administration in Early Education 3 Credits
Overview of management concepts applicable in a variety of early education settings. Focuses on management of programs and personnel, program and staff development, fiscal administration, and evaluation. Assignments require 3 hours of field experience and may include observation/participation in an early childhood setting.
Terms Typically Offered: Spring.

EDEC 290 Early Literacy for the Young Child 2 Credits
In-depth view of early literacy development in a changing, diverse society. Intended for the prospective early childhood teacher. Includes research about the language and literacy of young children. Explores how learners develop the ability to communicate and interact from birth to age 8. Assignments require 3 hours of field experience and may include observation/participation in an early childhood setting.
Terms Typically Offered: Fall, Spring.

EDEC 295 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

EDEC 296 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

EDEC 297 Practicum 1-2 Credits
Supervised experience working with children and families in early care and education settings. Accepted by the State Department of Child Care Services for licensing purposes. Scheduling is flexible.
Prerequisites: Permission of instructor.
Terms Typically Offered: Fall, Spring, Summer.
Course may be taken multiple times up to maximum of 15 credit hours.

EDEC 299 Student Teaching in Early Education 3 Credits
Supervised teaching experience. Allows the student teacher the opportunity to apply developmentally appropriate, standards-based practices, theories, and philosophies acquired in prior coursework. Provides incremental responsibility for teaching, supervision, and guidance of young children birth to 8 years. 300 field experience hours in an approved child care facility or school.
Prerequisites: EDEC 101, EDEC 122, EDEC 240, EDEC 250, and permission of instructor.
Terms Typically Offered: Fall, Spring.
Course may be taken multiple times up to maximum of 6 credit hours.

Educational Leadership (EDLD)

Courses

EDLD 506 Leadership and Organizational Change 3 Credits
Knowledge and skills for creating effective schools. Strategies for linking policy and law to instructional change. Social and political assumptions underlying current efforts towards curriculum and instructional reform in elementary and secondary schools. Study of planning and evaluation in schools and school districts including strategic planning, effectiveness and curriculum audits, facility planning, and program planning and evaluation.
Prerequisites: Current teaching certificate; Acceptance into EDLD Master's or certificate program or the EDTL Master's program.
Terms Typically Offered: Summer.

EDLD 515 Dynamic School Leadership in a Democratic Society: Introduction to School Administration 3 Credits
Study of educational leadership, administration, and management with reference to current practice at the school level. Attention to administrative theory and practice, philosophy, and organizational development. Through examination of leadership and organizational models, students analyze their district using political, structural, and cultural frames. Leadership in democratic society is explored, specifically related to a pluralistic society and a culturally responsive education.
Prerequisites: Current teaching certificate; Acceptance into EDLD Master's or certificate program or EDTL Master's program.
Terms Typically Offered: Summer.

EDLD 520A Principalship I 2 Credits
This introductory course will engage students in developing a comprehensive understanding of the role of the principal as instructional leader and change agent in today's PK-12 schools. Students will be introduced to the skill set needed to be an effective instructional leader and the knowledge base outlined in the Colorado Standards for the licensure of school principals. The historical role of the school principal will be compared and contrasted with the current demands of the modern school principal.
Prerequisites: Current teaching certificate, acceptance into EDLD program.

EDLD 520B Principalship II 2 Credits
This introductory course will engage students in developing a comprehensive understanding of the role of the principal as instructional leader and change agent in today's PK-12 schools. Students will be introduced to the skill set need to be an effective instructional leader and the knowledge base outlined in the Colorado Standards for the licensure of school principals. The historical role of the school principal will be compared and contrasted with the current demands of the modern school principal.
Prerequisites: EDLD 520A, current teaching certificate, and acceptance into EDLD program.

EDLD 532 School Finance and Legal Aspects of School Administration 3 Credits
Study of the relationship between politics, policy and governance of schools, including political systems, inter-governmental relations, power and conflict, and policy development regarding equity, quality and efficiency. While statutory and case law serve as reference points for discussion, the primary objective is to examine the relationship between the legal issues of education and the implications for administrative leadership.
Prerequisites: Current teaching certificate, acceptance into EDLD program.
Terms Typically Offered: Spring.

EDLD 535 Internship in Educational Leadership I 1 Credit
Gain knowledge and experience in varied aspects of school administration. Engagement in activities designed to develop and demonstrate leadership competencies essential for solving school problems, improving curriculum and instructional practices, and increasing student achievement. Leadership competencies align to state and national standards.
Prerequisites: EDLD 520A, current teaching certificate, and acceptance into graduate program.

EDLD 540 School Improvement and Accountability 3 Credits
Construction, administration and interpretation of educational assessments for the systematic analysis of student learning and teaching practice. Emphasis on the use and understanding of data analysis to improve teaching and learning in the classroom. Statistical analysis relating to education leadership decision-making applications. Analysis of school culture in high performing schools and problem-solving protocols related to school culture improvement.
Prerequisites: Current teaching certificate; Acceptance into the EDLD Master's or certificate program or the EDTL Master's program.
Terms Typically Offered: Fall.

EDLD 542 Instructional Supervision and Management/HR 3 Credits
Study of effective human resources management, including recruitment, selection, induction, staff development, employee assistance, evaluation, contract negotiation and personnel management. The skills of conflict resolution and collaboration will be explored as well as ways to assess the learning organization needs.
Prerequisites: Current teaching certificate, acceptance into M.A. program, GRE.

EDLD 545 Internship in Educational Leadership II 1 Credit
Gain knowledge and experience in varied aspects of school administration. Engagement in activities designed to develop and demonstrate leadership competencies essential for solving school problems, improving curriculum and instructional practices, and increasing student achievement. Leadership competencies align to state and national standards.
Prerequisites: EDLD 520A, current teaching certificate, and acceptance into graduate program.

EDLD 595 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

Electric Lineworker (ELCL)

Courses

ELCL 125 Job Training and Safety 4 Credits
Job training and safety skills, including CDL, basic use and care of personal protective equipment and climbing equipment, daily job briefings, daily inspection of motorized equipment, and knot tying.
Terms Typically Offered: Fall.
Fees: Yes.

ELCL 131 Electrical Distribution Theory I 4 Credits
Electrical theory, powerline equations, pole setting techniques, procedures for sagging and splicing of conductors, energized and de-energized line work, and installation of protective grounds.
Terms Typically Offered: Fall.

ELCL 131L Electric Distribution Lab 4 Credits
Examination of the National Electric Safety Code, equipment operation, material records, knot tying, installation of protective grounds, pole climbing, replace insulators, replacing crossarms, conductor ties, and overhead line construction.
Fees: Yes.

ELCL 132 Electrical Distribution Theory II 4 Credits
Installation and operation of protective equipment, transformer hookups, voltage regulation, hotstick maintenance, troubleshooting, and outage restoration.
Prerequisites: ELCL 131.
Corequisites: ELCL 132L.
Terms Typically Offered: Spring.

ELCL 132L Electrical Distribution Theory II Laboratory 4 Credits
Installation and operation of protective equipment, transformer hookups, voltage regulation, hotstick maintenance, troubleshooting, and gloving from the pole and underground distribution.
Prerequisites: ELCL 131.
Corequisites: ELCL 132.
Terms Typically Offered: Spring.
Fees: Yes.

ELCL 137 Advanced Electrical Distribution 2 Credits
Meter safety, connector installation, street lighting, rubber cover up, and public relations. Two hours lecture, eight hours laboratory per week.
Corequisites: ELCL 137L.

ELCL 137L Advanced Electrical Distribution Laboratory 4 Credits
Examination of meter safety, connector installation, street lighting, rubber cover up, and public relations.
Prerequisites: ELCL 125.
Corequisites: ELCL 137.
Terms Typically Offered: Spring.
Fees: Yes.

ELCL 140 Underground Procedures 4 Credits
Examination of safety practices, terminology, fault finding, cable locating, switching procedure, installation of terminal devices, splicing, and transformer application.
Corequisites: ELCL 132L.
Terms Typically Offered: Spring.

ELCL 145 Hotline Procedures 1 Credit
Two weeks of training aided by outside specialists covering current hotline maintenance and underground installation methods.
Corequisites: ELCL 145L.
Terms Typically Offered: Spring.

ELCL 145L Hotline Procedures Laboratory 2 Credits
Two weeks of training aided by outside specialists covering current hotline maintenance and underground installation methods.
Corequisites: ELCL 145.
Terms Typically Offered: Spring.
Fees: Yes.

ELCL 195 Independent Study 1 or 2 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

ELCL 196 Topics 1 or 2 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ELCL 199 Internship 6 Credits
Opportunity for an individual to be employed for training by a utility company while maintaining his/her status as a Colorado Mesa University student. Provides excellent on-the-job training benefits. Students usually selected for this course by formal interview.
Prerequisites: Permission of instructor. Eighteen hours per week, two semesters after completion of regular program.
Course may be taken multiple times up to maximum of 6 credit hours.

Electrical/Computer Engineering (EECE)

Courses

EECE 225 Introduction to Circuits and Electronics 3 Credits
Analysis of electric circuits by use of Ohm's law, network reduction, node and loop analysis, Thevenin's and Norton's theorems, DC and AC signals, transient response of simple circuits, transfer functions, basic diode and transistor circuits, and operational amplifiers.
Prerequisites: PHYS 132/PHYS 132L; and MATH 236 (can be taken concurrently).
Corequisites: EECE 225L.
Terms Typically Offered: Fall.

EECE 225L Introduction to Circuits and Electronics Laboratory 1 Credit
Lab component required for EECE 225. Introduces analysis, modeling, design, and testing of analog electronic circuits in a practical laboratory setting.
Prerequisites: PHYS 132/PHYS 132L; and MATH 236 (can be taken concurrently).
Corequisites: EECE 225.
Terms Typically Offered: Fall.
Fees: Yes.

EECE 226 Circuits as Systems 3 Credits
Continued analysis of basic circuits, Laplace transform techniques, transfer functions, frequency response, Bode diagrams, resonant circuits, Fourier series expansions, and convolution.
Prerequisites: EECE 225 and MATH 236.
Corequisites: EECE 226L.
Terms Typically Offered: Spring.

EECE 226L Circuits as Systems Design Laboratory 1 Credit
Lab component required for EECE 226. Emphasizes design and testing of analog electronic circuits in a practical laboratory setting.
Prerequisites: EECE 225 and MATH 236.
Corequisites: EECE 226.
Terms Typically Offered: Spring.
Fees: Yes.

EECE 235 Digital Logic 3 Credits
Design and applications of digital logic circuits, including both combinational and sequential logic circuits. Introduces hardware descriptive language, simulating and synthesis software, and programming of field programmable arrays (FPGAs).
Prerequisites: CSCI 111 or CSCI 130.
Terms Typically Offered: Fall.

EECE 244 Applications of Embedded Systems 3 Credits
Introduction to concepts relating to embedded systems and computer architecture through programming a microcontroller. Application of digital and analog electronics concepts to engineer hardware, firmware, and appropriate solutions.
Prerequisites: CSCI 111 or CSCI 130; and EECE 225/EECE 225L or ENGR 317/ENGR 317L.
Terms Typically Offered: Spring.
Fees: Yes.

EECE 337 Embedded Systems 3 Credits
Introduction to design of embedded systems. Skills associated with software development and debugging will be developed. Course uses modern system design platforms to create custom embedded firmware. Students will compare custom solutions to those involving the application of existing tools to control external peripherals, such as lights, sensors, and screens.
Prerequisites: CSCI 241; or CSCI 112 and ENGR 140.
Equivalent Course(s): CSCI 322
Terms Typically Offered: Fall.

EECE 396 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

EECE 496 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Electrical Construction (ELCE)

Courses

ELCE 102 Electrical Blueprint Reading 4 Credits
Development of skills needed to interpret electrical drawings properly. Critical for anyone involved in the design, construction, or maintenance of electrical systems.
Terms Typically Offered: Fall.
Fees: Yes.

ELCE 110 House Wiring 4 Credits
Approaches to residential building wiring in conformance with the current National Electrical Code and local codes using non-metallic cable.
Terms Typically Offered: Fall.
Fees: Yes.

ELCE 120 Commercial Wiring 4 Credits
Approaches to commercial and industrial building wiring in conformance with the current National Electrical Code and local codes using electric metallic tubing and other raceways.
Prerequisites: ELCE 110.
Terms Typically Offered: Spring.
Fees: Yes.

ELCE 124 Electrical Safety 1 Credit
Exploration of OSHA's electrical safety-related work practices and how they are applied to the work environment.
Terms Typically Offered: Fall, Spring.

ELCE 130 National Electrical Code I 4 Credits
Exploration of the National Electrical Code and local code requirements for electrical installations. Chapters one through four of the National Electrical Code are covered.
Terms Typically Offered: Spring.

ELCE 135 National Electrical Code II 4 Credits
Further development of material from ELCE 130 and covering chapters five through nine of the National Electrical Code, including hazardous locations, special occupancies, conditions, and equipment.
Prerequisites: ELCE 130.
Terms Typically Offered: Fall.

ELCE 144 Grounding and Bonding 1 Credit
Exploration of technology and techniques available for code and standards-compliant grounding and bonding systems, focusing on grounding and bonding requirements as they relate to Article 250 and other articles of the NEC code.
Terms Typically Offered: Spring.
Fees: Yes.

ELCE 150 DC Circuit Fundamentals 4 Credits
Introduction to the principles of DC electricity and magnetism, with emphasis on Ohm's, Kirchoff's, and Watt's laws to analyze circuit voltage, current, and power. Addresses common measuring instruments and safety.
Prerequisites: MATH 108 or higher (may be taken concurrently).
Terms Typically Offered: Fall.
Fees: Yes.

ELCE 155 AC Circuit Fundamentals 4 Credits
Exploration of AC circuits, including: resistance, current, voltage, computations of series and parallel circuits, circuit analysis, magnetism, inductive and capacitive circuits, and troubleshooting with basic test equipment.
Prerequisites: ELCE 150.
Terms Typically Offered: Spring.
Fees: Yes.

ELCE 167 Electrical Maintenance 4 Credits
Introduction to common electrical repairs, electrical systems, tools, and test equipment. Includes: replacing or repairing devices, such as receptacles, light fixtures and ballasts, circuit breakers, fuses, and switches. Addresses electrical safety and code applications.
Prerequisites: ELCE 110.
Terms Typically Offered: Spring.
Fees: Yes.

ELCE 220 Industrial Controls 4 Credits
Application of electrical and electromechanical sensing/control devices, including: heating, ventilating, and air conditioning applications, motor control, conveyor drives, and other industrial applications. Students design control systems to meet assigned conditions, use principles of relay logic to prepare correct ladder diagrams, and wire up, test, and troubleshoot their systems. Course stresses accuracy, safety, and National Electric Code requirements.
Terms Typically Offered: Spring.
Fees: Yes.

ELCE 222 Instrumentation and Process 4 Credits
Investigation of theory of industrial instrumentation measurement through process control. Includes theory and measurement methods for temperature, pressure, level, and flow. Incorporates hands-on training equipment to measure temperature and pressure, and perform calibration of a pressure differential transmitter. Test equipment is used to simulate a two-wire transmitter and source a current signal for calibration of an I/P transducer.
Terms Typically Offered: Fall.
Fees: Yes.

ELCE 225 Introduction to PLCs 4 Credits
Development of the ability to read, interpret, and analyze electrical ladder drawings. Acquaints the student with the basic electromechanical components commonly used in electrical control circuits, as well as solid-state relays and the role of programmable controllers.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ELCE 229 AC/DC Variable Speed Drive 2 Credits
Introduction to variable speed drive technology that offers a cost-effective method to match driver speed to load demands. Represents a state-of-the-art opportunity to reduce operating costs and improve overall productivity. Focuses on variable speed drive technology, including operation, set-up, troubleshooting, maintenance, proper selection, and application for drives, as well as basic drive overview and comparison.
Terms Typically Offered: Spring.
Fees: Yes.

ELCE 263 Specific Wiring for Structured Cabling Systems 2 Credits
Development of ability to wire for specifications and for structured cabling systems. Examines the job layout, products used, and execution of the project.
Terms Typically Offered: Fall.
Fees: Yes.

ELCE 295 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

Emergency Management (EMDP)

Courses

EMDP 211 Introduction to Emergency Management 3 Credits
Introduction to the complex and evolving field of emergency management. Development of understanding of key stakeholders, principles, and activities involved in an "all-hazards, all-phases" approach to dealing with disasters.
Terms Typically Offered: Fall.

EMDP 295 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

EMDP 321 Hazard Preparedness and Mitigation 3 Credits
Examination of methods and practices for hazard mitigation and preparedness. Includes developing an understanding of risk and vulnerability, as well as their relationship with public policy and implementation actions that are relevant to hazard preparedness and mitigation.
Prerequisites: EMDP 211.
Terms Typically Offered: Spring.

EMDP 331 Disaster Response and Recovery 3 Credits
Examination of practices and principles that promote effective disaster response and recovery operations. Review of popular myths and realities regarding human behavior in catastrophic events in addition to divergent approaches for disaster management. Includes developing an understanding of the Incident Command System, National Incident Management System, and emergency operations centers.
Prerequisites: EMDP 211.
Terms Typically Offered: Spring.

EMDP 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

Emergency Medical Tech (EMTS)

Courses

EMTS 115 Emergency Medical Responder 3 Credits
Introduction to prehospital emergency care. Provides clear, first responder-level training for fire service, emergency, law enforcement, military, civil, and industrial personnel.
Terms Typically Offered: Spring.
Fees: Yes.

EMTS 121 EMT Fundamentals 3 Credits
Introduction to fundamental skills of the Emergency Medical Technician (EMT) student. Topics include: EMS systems, well-being of the EMT, communication, and patient assessment.
Corequisites: EMTS 122, EMTS 123, EMTS 124, and EMTS 170.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

EMTS 122 EMT Medical Emergencies 4 Credits
Knowledge and skills to effectively provide emergency care and transportation to a patient experiencing a medical emergency. Focus on the integration of the physical exam, medical history, and pathophysiology when assessing and treating the medical patient.
Corequisites: EMTS 121, EMTS 123, EMTS 124, and EMTS 170.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

EMTS 123 EMT Trauma Emergencies 2 Credits
Knowledge and skills to provide appropriate emergency care and transportation of a patient who has suffered a traumatic injury. The concepts of kinematics and the biomechanics of trauma, along with pathophysiology and injury patterns, will provide the student with the ability to assess and manage the trauma patient.
Corequisites: EMTS 121, EMTS 122, EMTS 124, and EMTS 170.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

EMTS 124 EMT Special Considerations 2 Credits
Knowledge and skills required to modify the assessment, treatment, and transportation of special patient populations and patients in special circumstances. This course also provides an overview of incident command, mass casualty incidents, vehicle extrication, air medical support, hazardous materials, and terrorism.
Corequisites: EMTS 121, EMTS 122, EMTS 123, and EMTS 170.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

EMTS 130 Emergency Medical Technician - Basic IV Therapy 2 Credits
Focuses on cognitive and skill practice as required by Colorado Prehospital Care program for EMT-Basic level IV approval. Examines criteria, procedures and techniques for IV therapy, discusses fluid and electrolyte balance and principles and treatment for shock.
Fees: Yes.

EMTS 170 EMT Clinical 1 Credit
Clinical experience required for initial certification and some renewal processes.
Corequisites: EMTS 121, EMTS 122, EMTS 123, and EMTS 124.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

EMTS 190 Emergency Medical Technician - Basic EKG Interpretation 2 Credits
Interpretation of EKG strips, anatomy and physiology of the heart, using three-lead monitoring as a guide. Introduction to twelve-lead EKG.

EMTS 196 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

EMTS 225 Fundamentals of Paramedic Practice 3 Credits
Introduction to the fundamentals of paramedicine. Comprehensive study of anatomy, physiology, pharmacology, and airway management. The course is designed to prepare students for entry-level paramedic roles. Labs provide practical application of paramedic skills.
Prerequisites: EMTS 130, EMTS 190, completion of EMT certificate, and current CPR card.
Corequisites: EMTS 225L.
Terms Typically Offered: Fall.

EMTS 225L Fundamentals of Paramedic Practice Laboratory 2 Credits
Introduction to the fundamentals of paramedicine. Comprehensive study of anatomy, physiology, pharmacology, and airway management. The course is designed to prepare students for entry-level paramedic roles. Labs provide practical application of paramedic skills.
Corequisites: EMTS 225.
Terms Typically Offered: Fall.
Fees: Yes.

EMTS 227 Paramedic Special Considerations 3 Credits
Introduction to advanced concepts in problem-focused patient history, diagnostic skills, and assessments necessary for special populations. Focuses on a comprehensive study of advanced life support practice. Labs provide practical, hands-on experience.
Prerequisites: EMTS 225/EMTS 225L.
Corequisites: EMTS 227L.
Terms Typically Offered: Spring.

EMTS 227L Paramedic Special Considerations Laboratory 2 Credits
Introduction to advanced concepts in problem-focused patient history, diagnostic skills, and assessments necessary for special populations. Focuses on a comprehensive study of advanced life support practice. Labs provide practical, hands-on experience.
Prerequisites: EMTS 225/EMTS 225L.
Corequisites: EMTS 227.
Terms Typically Offered: Spring.
Fees: Yes.

EMTS 229 Paramedic Pharmacology 3 Credits
Comprehensive study of emergency pharmacology and its effects on the human body. Labs provide practical applications of pre-hospital emergency medications.
Prerequisites: EMTS 225/EMTS 225L (may be taken concurrently).
Corequisites: EMTS 229L.
Terms Typically Offered: Fall.

EMTS 229L Paramedic Pharmacology Laboratory 2 Credits
Comprehensive study of emergency pharmacology and its effects on the human body. Labs provide practical applications of pre-hospital emergency medications.
Prerequisites: EMTS 225/EMTS 225L (may be taken concurrently).
Corequisites: EMTS 229.
Terms Typically Offered: Fall.
Fees: Yes.

EMTS 231 Paramedic Cardiology 5 Credits
Exploration of advanced cardiology topics as presented in the National Standard Curriculum for paramedics. Labs provide practical experience with advanced 12-lead interpretation.
Prerequisites: EMTS 225/EMTS 225L (may be taken concurrently).
Corequisites: EMTS 231L.
Terms Typically Offered: Fall.

EMTS 231L Paramedic Cardiology Laboratory 1 Credit
Exploration of advanced cardiology topics as presented in the National Standard Curriculum for paramedics. Labs provide practical experience with advanced 12-lead interpretation.
Prerequisites: EMTS 225/EMTS 225L (may be taken concurrently).
Corequisites: EMTS 231.
Terms Typically Offered: Fall.
Fees: Yes.

EMTS 233 Paramedic Medical Emergencies 4 Credits
Emphasis on the pathophysiology, diagnosis, and management of disease and conditions in the emergency setting. Labs provide hands-on experiences in live scenarios.
Prerequisites: EMTS 225/EMTS 225L.
Corequisites: EMTS 233L.
Terms Typically Offered: Spring.

EMTS 233L Paramedic Medical Emergencies Laboratory 1 Credit
Emphasis on the pathophysiology, diagnosis, and management of disease and conditions in the emergency setting. Labs provide hands-on experiences in live scenarios.
Prerequisites: EMTS 225/EMTS 225L.
Corequisites: EMTS 233.
Terms Typically Offered: Spring.
Fees: Yes.

EMTS 235 Paramedic Trauma Emergencies 4 Credits
Comprehensive study of adult and pediatric trauma emergencies, with an in-depth study of the pharmacology involved in trauma patient care. Labs provide practical hands-on experience.
Prerequisites: EMTS 225/EMTS 225L.
Corequisites: EMTS 235L.
Terms Typically Offered: Spring.

EMTS 235L Paramedic Trauma Emergencies Laboratory 1 Credit
Comprehensive study of adult and pediatric trauma emergencies, with an in-depth study of the pharmacology involved in trauma patient care. Labs provide practical hands-on experience.
Prerequisites: EMTS 225/EMTS 225L.
Corequisites: EMTS 235.
Terms Typically Offered: Spring.
Fees: Yes.

EMTS 237 Paramedic Internship Preparation 2 Credits
Review of concepts and techniques used in the prehospital setting. Prepares the student to enter into field internships.
Prerequisites: EMTS 225/EMTS 225L, EMTS 227/EMTS 227L, EMTS 229/EMTS 229L, EMTS 231/EMTS 231L, EMTS 233/EMTS 233L, and EMTS 235/EMTS 235L.
Terms Typically Offered: Summer.

EMTS 280 Paramedic Internship I 6 Credits
Preceptor/internship program for paramedic students and the third phase of the National Standard Paramedic Curriculum course, as approved by the Colorado Department of Public Health and Environment. Includes 250 contact hours.
Prerequisites: EMTS 237 (may be taken concurrently).
Terms Typically Offered: Summer.
Fees: Yes.

EMTS 281 Paramedic Internship II 6 Credits
Continuation of EMTS 280, a preceptor program for paramedic students. Includes 250 contact hours.
Prerequisites: EMTS 280 (may be taken concurrently).
Terms Typically Offered: Summer.
Fees: Yes.

Energy Management (EMGT)

Courses

EMGT 101 Energy Management Fundamentals 3 Credits
Introduction to basic concepts of energy management.

EMGT 196 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

EMGT 201 Land Management Fundamentals 3 Credits
Introduction to basic concepts of land management and practices.

EMGT 296 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

EMGT 340 Energy Industry Fundamentals 3 Credits
Provides energy literacy through a survey of the sources, distribution and uses of energy, including the evolution of energy from wood fires to coal to oil to the current mix of coal, oil, natural gas, nuclear, hydroelectric, wind, geothermal, biomass, solar and ocean currents and tides. Future energy policy, sources, uses and case studies will be discussed as well as alternative energy sources.
Prerequisites: GEOL 111/GEOL 111L, and CHEM 121/CHEM 121L.

EMGT 350 Energy Development, Transportation, and Markets 3 Credits
Overview of the energy industry domestic and worldwide. Basic energy industry drilling and production terminology, concepts and terms introduced and utilized throughout the course. Issues surrounding business models, upstream, midstream and downstream discussed in detail.
Prerequisites: GEOL 111/GEOL 111L, and FINA 301.

EMGT 355 Landman Geo-Petro-Engineering 3 Credits
Petroleum engineering fundamentals. Properties of reservoir rock, single phase fluid flow through porous media, surface forces, fluid saturation, and completion technology. Evaluation of petroleum reservoir field data.
Prerequisites: EMGT 101 and EMGT 201.

EMGT 360 Real Property, Oil and Gas Law 3 Credits
The body of case law surrounding oil and gas leases and leasehold interests, mineral titles, concurrent ownership and split estates, and governmental regulation of mineral development, including pooling and unitization of oil and gas leases.
Prerequisites: EMGT 340.

EMGT 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

EMGT 410 Energy Regulation and Compliance 3 Credits
The body of law surrounding governmental regulation of mineral development, including environmental liability, diligent and prudent operations, contractual risk allocation, and regulatory case studies.
Prerequisites: EMGT 340.

EMGT 440 Energy Land Practices I 3 Credits
Overview of the supply and demand for energy. The physical path of energy from source to user, transportation issues pertaining to energy, energy pricing methodologies, energy markets, and risk control through the use of derivatives in the energy industry.
Prerequisites: EMGT 340 and FINA 301.

EMGT 450 Energy Land Practices II 3 Credits
Imparts mastery of the fundamental concepts and terminology related to real property law. Application of concepts to situations occurring in the energy environment as land is found, purchased and developed for use.
Prerequisites: EMGT 340.

EMGT 494 Energy Senior Seminar 3 Credits
Legal, economic, environmental, and national security issues surrounding the energy industry. Alternative energy sources and other current issues in energy management.
Prerequisites: EMGT 340.

EMGT 495 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

EMGT 496 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

EMGT 499 Internship 1-9 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Engineering (ENGR)

Courses

ENGR 101 Introduction to Engineering 1 Credit
Exploration of engineering as a field. Includes general characteristics of the profession, training required for various engineering degrees, industries in which engineers practice, and tools for academic and professional success in engineering, including the basics of report generation and the licensure process. Ethics and societal issues related to engineering will also be introduced.
Terms Typically Offered: Fall.

ENGR 125 Computer-Aided Design and Fabrication 3 Credits
Introduction to engineering design with a contemporary computer-aided design (CAD) software application. Includes relevant engineering graphics concepts such as orthographic projection, sections, creation of 3D models, and engineering drawing practices.
Terms Typically Offered: Fall, Spring.

ENGR 140 First-Year Engineering Project 3 Credits
Introduction to the application of mathematic and scientific skills in interdisciplinary engineering projects. Includes elements of teamwork, project management, engineering design and prototyping, and project documentation.
Prerequisites: MATH 119; or MATH 119A and MATH 119B.
Terms Typically Offered: Spring.

ENGR 196 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ENGR 224 Materials Science 2 Credits
Structure, properties, and processing of metallic, polymeric, ceramic, and composite materials. Perfect and imperfect solids; phase equilibria; transformation kinetics; mechanical behavior; material degradation. Includes both materials science and materials engineering components.
Prerequisites: CHEM 151/CHEM 151L or CHEM 131/CHEM 131L; and PHYS 131/PHYS 131L.
Corequisites: ENGR 224L.
Terms Typically Offered: Fall, Spring.

ENGR 224L Materials Science Laboratory 1 Credit
Hands-on application of topics learned in lecture. Includes mechanical testing, determination of material properties, thermal processing, and technical reporting. Lab component for ENGR 224.
Prerequisites: CHEM 151/CHEM 151L or CHEM 131/CHEM 131L; and PHYS 131/PHYS 131L.
Corequisites: ENGR 224.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

ENGR 225 Introduction to Manufacturing 3 Credits
Principles, processes, and problems associated with the conversion of engineered materials into useful goods. Fundamentals of geometric specification, casting, machining, plastic deformation, bulk deformation, joining processes, and processes for plastics, ceramics, and composites.
Prerequisites: MAMT 106 and ENGR 224.
Terms Typically Offered: Fall.
Fees: Yes.

ENGR 261 Statics and Structures 3 Credits
Statics of particles, equivalent force systems, rigid bodies, equilibrium of rigid bodies in two and three dimensions, analysis of truss and frame structures, distributed force systems including centroid calculations, and friction.
Prerequisites: MATH 136 or MATH 152, and PHYS 131/PHYS 131L.
Terms Typically Offered: Fall, Spring.

ENGR 263 Mechanics of Solids 3 Credits
Exploration of solid mechanics, including: normal stress/strain, shear stress, torsional stress/strain, bending stress, analysis of combined stress states in 2-D and 3-D, and stress concentrations.
Prerequisites: ENGR 261.
Terms Typically Offered: Fall, Spring.

ENGR 305 Engineering Economics and Ethics 2 Credits
Applications of economics and ethics for mechanical engineers. Topics include: cost concepts and design economics, money-time relationships, and comparison of alternatives. Engineering ethics includes personal vs. professional ethics, ethical problem-solving techniques, rights and responsibilities of engineers, and whistle-blowing.
Prerequisites: ENGR 261 (may be taken concurrently).
Terms Typically Offered: Fall.

ENGR 312 Engineering Thermodynamics 3 Credits
Introduction to engineering thermodynamics, the science of heat energy conversion. Develops an understanding of the interrelations of energy, heat, and work. Covers the first and second laws of thermodynamics applied to closed and open systems, the ideal gas law relations, thermodynamic properties of materials, and ideal thermodynamic cycles.
Prerequisites: ENGR 261.
Terms Typically Offered: Fall.

ENGR 317 Fundamentals of Circuits and Electronics 2 Credits
Introduction to resistive circuits, capacitors, inductors, transient analysis, sine waves, AC circuit analysis, resonance, and transformers.
Prerequisites: MATH 136 or MATH 152, and PHYS 131/PHYS 131L.
Corequisites: ENGR 317L.
Terms Typically Offered: Spring.

ENGR 317L Fundamentals of Circuits and Electronics Laboratory 1 Credit
Introduction to resistive circuits, capacitors, inductors, transient analysis, sine waves, AC circuit analysis, resonance, and transformers.
Prerequisites: MATH 136 or MATH 152, and PHYS 131/PHYS 131L.
Corequisites: ENGR 317.
Terms Typically Offered: Spring.
Fees: Yes.

ENGR 321 Fluid Mechanics 3 Credits
Introduction to fluid mechanics. Develops an understanding of fluid statics and fluid dynamics, pressure and flow measurements, laminar and turbulent flow analyses, flow in pipes and ducts, the forces due to fluid motion, and fluid machinery.
Prerequisites: ENGR 261.
Terms Typically Offered: Fall.

ENGR 325 Component Design 3 Credits
Application of fundamental mechanics in analysis and design of machine components and systems. Emphasis on stress and strain analyses using failure theory for ductile and brittle components including fatigue failure theories.
Prerequisites: ENGR 224 and ENGR 263.
Terms Typically Offered: Spring.

ENGR 329 Bicycle Design and Frame-Building 3 Credits
Engineering and artistic execution of designing and building a bicycle frame. Fundamentals of bicycle dynamics, handling, and sizing. Material properties and selection. Discussion of relevant standards covering bicycle frame and fork testing. Fabrication skills necessary to construct a custom bicycle frame will be developed.
Prerequisites: ENGR 125 and ENGR 263.
Terms Typically Offered: Spring.

ENGR 333 Lean Principles 3 Credits
Overview of the structure and tools of the Lean production system. Students will learn how Lean can be applied to various industries and even outside of the factory, in settings such as health care, finance, IT, and engineering.
Prerequisites: ENGR 225.
Terms Typically Offered: Spring.

ENGR 336 Heat and Power 3 Credits
Investigation of major modes of heat transfer, including steady and transient conduction, internal and external convection, and radiation. Emphasis is placed on application to industrial processes. Analyses include processes like heat treatment of materials and heat exchangers using simulation.
Prerequisites: ENGR 312 and ENGR 321.
Terms Typically Offered: Spring.
Fees: Yes.

ENGR 343 Dynamics 3 Credits
Kinematics of particles and rigid bodies. Kinetics of particles and rigid bodies in plane motion, including Newton's second law, work and energy, and impulse and momentum.
Prerequisites: ENGR 261.
Terms Typically Offered: Fall, Spring.

ENGR 345 Engineering Integration I 3 Credits
First course in a design sequence integrating concepts from the mechanical engineering technology curriculum. Emphasis on laboratory experience and the design, analysis, and testing of mechanical systems. Teamwork on "design-and-build" projects will require manufacture of mechanical systems and/or electronic circuits.
Prerequisites: ENGR 224, ENGR 263, MAMT 102, and CSCI 130.
Terms Typically Offered: Fall.
Fees: Yes.

ENGR 353 Exploring Entrepreneur Opportunities 3 Credits
Introduction to innovation and opportunity recognition, including development of business ideas, business model validation and business feasibility analysis.
Equivalent Course(s): ENTR 343

ENGR 385 Engineering Integration II 3 Credits
Second course in a design sequence integrating concepts from the mechanical engineering technology curriculum. Emphasis on laboratory experience and the design, analysis, and testing of mechanical systems. Teamwork on "design-and-build" projects will require manufacture of mechanical systems and/or electronic circuits.
Prerequisites: ENGR 345.
Terms Typically Offered: Spring.
Fees: Yes.

ENGR 387 Structured Research 1-3 Credits
Supervised research experience offering students the opportunity to conduct primary or secondary research under faculty guidance.
Prerequisites: Sophomore standing or higher.
Terms Typically Offered: Fall, Spring.
Course may be taken multiple times up to maximum of 6 credit hours.

ENGR 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

ENGR 396 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ENGR 399 Internship 1-12 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ENGR 401 Professionalism Seminar 1 Credit
Preparation for a career in the engineering profession. Includes professionalism, ethics, competitive job application materials, jobs and internships, and current engineering issues.
Prerequisites: ENGR 345 (may be taken concurrently).
Terms Typically Offered: Fall.

ENGR 424 Machine Elements 3 Credits
Principles of mechanics and commonly used failure theories applied to the design and analysis of machine elements subjected to static and dynamic (fatigue) load conditions. Includes the use and interpretation of simulation tools throughout the course.
Prerequisites: ENGR 325.
Terms Typically Offered: Fall.

ENGR 425 Advanced Manufacturing 3 Credits
Use of cutting edge materials and emerging capabilities that utilize the coordination of information, automation, computation, software, sensing, and networking. Includes discussion of product data management, flexible manufacturing, manufacturability, and product life-cycle management.
Prerequisites: ENGR 225, ENGR 305, and STAT 305.
Terms Typically Offered: Spring.
Fees: Yes.

ENGR 427 Engineering Measurements 2 Credits
Methods of experimentation and data analysis. Specific skills used in planning an experiment, applying sound procedures, data analysis, and written and oral communication of results.
Prerequisites: ENGL 325, ENGR 263, ENGR 317, and STAT 305.
Terms Typically Offered: Fall.
Fees: Yes.

ENGR 435 Industrial Controls 3 Credits
Fundamentals of electronic control of industrial systems via programmable logic controllers for discrete event control and analog applications. Applications include: relay logic, input/output field devices, programmable logic controllers, human machine interfaces, and variable frequency drives. Topics covered include: design and programming of complete control circuits, selecting appropriate components, and troubleshooting improperly functioning systems.
Prerequisites: ENGR 317/ENGR 317L.
Terms Typically Offered: Spring.

ENGR 445 MET Design Project I 3 Credits
First of a two-course comprehensive group capstone design experience, focusing on the design proposal. This sequence applies material from prior coursework and introduces project management concepts such as defining the project scope, specifying design requirements, analyzing engineering design, prototyping proofs-of-concept, creating technical drawings, and preparing project reports and documentation.
Prerequisites: ENGR 140, ENGR 225, ENGR 312, ENGR 317, ENGR 317L, ENGR 321, ENGR 325, ENGR 385, MAMT 102, and ENGL 325.
Terms Typically Offered: Fall.

ENGR 455 Fluid Power Systems 3 Credits
Fundamentals and electronic control of hydraulic and pneumatic systems and their respective components. Includes designing fluid power systems, specifying necessary components, and systemic troubleshooting of circuits commonly experienced in industrial applications.
Prerequisites: ENGR 321.
Terms Typically Offered: Fall.
Fees: Yes.

ENGR 485 MET Design Project II 3 Credits
Second of a two-course comprehensive group capstone design experience, focusing on design optimization, fabrication, testing, and evaluation. Students apply their project management skills to complete the project and orally present the final design, write a final project report, and develop proper documentation for the final product.
Prerequisites: ENGR 445.
Terms Typically Offered: Spring.

ENGR 487 Structured Research 1-3 Credits
Supervised research experience offering students the opportunity to conduct primary or secondary research under faculty guidance.
Prerequisites: Junior standing or higher.
Terms Typically Offered: Fall, Spring.
Course may be taken multiple times up to maximum of 6 credit hours.

ENGR 495 Independent Study 1-4 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

ENGR 496 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

English (ENGL)

Courses

ENGL 111 English Composition I-GTCO1 3 Credits
Introduction to writing as a process with an emphasis on achieving rhetorical purpose.
Prerequisites: Students who do not meet placement criteria will be assigned to ENGC 090 and must pass that class with a "C" or higher to enroll in ENGL 111.
Essential Learning Categories: English
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring, Summer.

ENGL 112 English Composition II-GTCO2 3 Credits
The practice of academic writing that extends one's own thinking in response to the ideas of others.
Prerequisites: ENGL 111 with a grade of "C" or higher to fulfill English Competency requirement under Essential Learning.
Essential Learning Categories: English
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring, Summer.

ENGL 131 Western World Literature I-GTAH2 3 Credits
Study of literary works from the Classical, Medieval, and Renaissance periods.
Essential Learning Categories: Humanities
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall.

ENGL 132 Western World Literature II-GTAH2 3 Credits
Study of literary works from the late Renaissance, Neoclassic, Romantic, and Modern periods.
Essential Learning Categories: Humanities
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Spring.

ENGL 150 Introduction to Literature-GTAH2 3 Credits
Study of major genres of literature.
Essential Learning Categories: Humanities
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

ENGL 196 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ENGL 210 Introduction to Literary Studies 3 Credits
Introduction to the theory and practice of studying literature.
Prerequisites: ENGL 111.
Terms Typically Offered: Fall, Spring.

ENGL 219 Introduction to Professional Writing-GTCO3 3 Credits
Study of technical writing, public information and public relations writing, and free-lance nonfiction writing.
Prerequisites: ENGL 112.
Essential Learning Categories: English
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall.

ENGL 222 Mythology-GTAH2 3 Credits
Basic myths of the Greeks and Romans and the cultures that produced them, and/or the Northern and Medieval myths of Europe, their backgrounds in classical culture, and native folklore.
Essential Learning Categories: Humanities
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring, Summer.

ENGL 240 Children's Literature 3 Credits
Survey of literature for children from birth to age 12, focusing on ways of reading texts.
Terms Typically Offered: Fall, Spring.

ENGL 250 Introduction to Creative Writing 3 Credits
An introduction to the theory and practice of producing original works of poetry, fiction, and non-fiction prose.
Prerequisites: ENGL 111.
Terms Typically Offered: Fall, Spring.

ENGL 254 Survey of English Literature I-GTAH2 3 Credits
English literature from its beginnings through the Enlightenment.
Essential Learning Categories: Humanities
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

ENGL 255 Survey of English Literature II-GTAH2 3 Credits
English literature from the Romantics to the present day.
Essential Learning Categories: Humanities
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

ENGL 261 Survey of American Literature I-GTAH2 3 Credits
American literature from the beginnings to the late 19th Century.
Essential Learning Categories: Humanities
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

ENGL 262 Survey of American Literature II-GTAH2 3 Credits
American literature from the late 19th Century to the present.
Essential Learning Categories: Humanities
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

ENGL 296 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ENGL 301 Classical Greek and Latin Literature 3 Credits
Readings in English of Greek and Roman authors and major classical genres.
Prerequisites: ENGL 112.

ENGL 311 English Medieval Literature 3 Credits
Major works of Old and Middle English literature.
Prerequisites: ENGL 112.

ENGL 313 English Renaissance Literature 3 Credits
Major works of the 16th and 17th Centuries, including the Metaphysical and Caroline poets and John Milton.
Prerequisites: ENGL 112.

ENGL 314 American Literature to 1830 3 Credits
An in-depth study of various significant texts of the period, as well as other relevant texts. Texts and authors are chosen by the instructor to provide a thorough study of selected important historical, philosophical and literary aspects of the period.
Prerequisites: ENGL 112.

ENGL 315 American Literature 1830-1870 3 Credits
An in-depth study of various significant texts of the period, as well as other relevant texts. Texts and authors are chosen by the instructor to provide a thorough study of selected important historical, philosophical and literary aspects of the period.
Prerequisites: ENGL 112.

ENGL 316 American Literature 1870-1900 3 Credits
An in-depth study of various significant texts of the period, as well as other relevant texts. Texts and authors are chosen by the instructor to provide a thorough study of selected important historical, philosophical and literary aspects of the period.
Prerequisites: ENGL 112.

ENGL 320 Report and Proposal Writing 3 Credits
Introduction to the theory and practice of preparing and analyzing reports and proposals intended for businesses, governmental agencies, and private and corporate foundations.
Prerequisites: ENGL 112.
Terms Typically Offered: Fall, Spring.

ENGL 325 Writing for Engineers 3 Credits
Development of a set of communication tools by learning how to compose, design, and edit technical documents for the engineering professions. Topics include: technical documentation (lab reports, designing of reports, proposals), professional correspondence (emails, memo reports, and team meetings), and verbal and graphical communication of technical data.
Terms Typically Offered: Fall, Spring.

ENGL 330 Women in World Thought and Literature 3 Credits
Readings in world literature by and about women; interdisciplinary study of feminist theories and women's contributions to world thought.
Prerequisites: ENGL 112.

ENGL 335 The Bible as Literature 3 Credits
Survey of biblical literature in literary and historical contexts. Includes the Hebrew Bible/Old Testament, the New Testament, and non-canonical biblical literature.
Prerequisites: ENGL 112.
Terms Typically Offered: Fall, Spring.

ENGL 343 Language Systems and Linguistic Diversity 3 Credits
Introduction to the nature of language, first and second language acquisition, and issues relevant to linguistic diversity and multicultural literacies.
Prerequisites: ENGL 112.
Terms Typically Offered: Fall, Spring.

ENGL 355 Shakespeare 3 Credits
Early and mature Shakespearean plays, including genres of comedy, history, tragedy, and romance, emphasizing close textual reading in conjunction with cultural and intellectual contexts.
Prerequisites: ENGL 112.
Terms Typically Offered: Fall, Spring.

ENGL 365 Literature for Young Adults 3 Credits
Advanced study of major works for youth and adolescents throughout history, with an emphasis on contemporary authors.
Prerequisites: ENGL 112.

ENGL 370 Major Author 3 Credits
In-depth study of one or two important writers, with attention to the writer's distinctive style and subject matter, the range of the writer's career, and the influence of the writer's work.
Prerequisites: ENGL 112.
Course may be taken 10 times for credit.

ENGL 380 Memoir and Creative Non-Fiction 3 Credits
Theory and practice of the memoir and the personal essay. Emphasis on narrative craft, experiential expression, research, and interviewing.
Prerequisites: ENGL 250.

ENGL 381 Creative Writing: Fiction 3 Credits
Theory and practice of producing original works of fiction.
Prerequisites: ENGL 250.
Terms Typically Offered: Fall.

ENGL 382 Creative Writing: Crafting Fiction 3 Credits
In-depth focus on a specialized aspect of fiction writing.
Prerequisites: ENGL 250.
Terms Typically Offered: Spring.

ENGL 383 Creative Writing: Poetry 3 Credits
Theory and practice of producing original works of poetry.
Prerequisites: ENGL 250.
Terms Typically Offered: Spring.

ENGL 384 The Art of the Essay 3 Credits
Theory and practice of objective non-fiction, including expository and persuasive writing. Emphasis on style, structure, and audience.
Prerequisites: ENGL 250 or permission of instructor.

ENGL 385 Technical and Professional Writing 3 Credits
Practice in writing and editing of workplace documents, including correspondence, reports, and proposals.
Prerequisites: ENGL 112.
Terms Typically Offered: Spring.

ENGL 386 Roots of Modern Rhetoric 3 Credits
Survey of the history of rhetoric from classical Greece to the present, with emphasis on the Greco-Roman tradition.
Prerequisites: ENGL 112.
Terms Typically Offered: Fall.

ENGL 387 Literary Editing and Publishing 3 Credits
Practical experience in editing and publishing in one of Colorado Mesa University's literary journals.
Prerequisites: ENGL 250.
Terms Typically Offered: Fall.

ENGL 388 Creative Writing: Crafting Poetry 3 Credits
In-depth focus on a specialized aspect of poetry writing.
Prerequisites: ENGL 250 or permission of instructor.

ENGL 389 Screenwriting 3 Credits
Theory and practice of producing original screenplays.
Prerequisites: ENGL 250 or ENGL 390.
Terms Typically Offered: Fall.

ENGL 390 Introduction to Film Studies 3 Credits
Introduction to film narrative, cinematography, and theory.
Prerequisites: ENGL 112.
Terms Typically Offered: Fall.

ENGL 392 Introduction to Copy Editing 3 Credits
Approaches to principles of editing in a variety of genres and settings. Exploration of information associated with editing, including an emphasis on technical terms, levels of editing, and ethical issues.
Prerequisites: ENGL 112.
Terms Typically Offered: Fall.

ENGL 394 Technical and Professional Writing Topics 3 Credits
Topics at the discretion of the instructor, or to meet the needs of the department. Topics may include: grant writing for industry; professional editing; desktop publishing for professional writing; writing for online presentation; individual and team writing.
Prerequisites: ENGL 112.

ENGL 395 Independent Study 1-4 Credits
Prerequisites: ENGL 112.
Course may be taken multiple times up to maximum of 6 credit hours.

ENGL 396 Topics 1-3 Credits
Prerequisites: ENGL 112.
Course may be taken multiple times up to maximum of 15 credit hours.

ENGL 397 Practicum 3 Credits
Experience in a Basic Writing classroom helping the instructor with all phases of writing instruction.
Prerequisites: ENGL 250 or permission of instructor.

ENGL 398 Practicum in Editing and Publishing 1-3 Credits
Experience in editing and publishing one of Colorado Mesa University's journals. Credit hours contracted through advising instructor.
Prerequisites: ENGL 112.
Terms Typically Offered: Fall, Spring.
Course may be taken multiple times up to maximum of 9 credit hours.

ENGL 401 Studies in American Literature I 3 Credits
Analysis of American literary works before 1865. Specific course content varies and may focus on genre, author, movement, theme, period, or theory.
Prerequisites: ENGL 112.
Terms Typically Offered: Fall.

ENGL 402 Studies in American Literature II 3 Credits
Analysis of American literary works after 1865. Specific course content varies and may focus on genre, author, movement, theme, period, or theory.
Prerequisites: ENGL 112.
Terms Typically Offered: Spring.

ENGL 403 Studies in British and Commonwealth Literature I 3 Credits
Analysis of British and Commonwealth literary works before 1800. Specific course content varies and may focus on genre, author, movement, theme, period, or theory.
Prerequisites: ENGL 112.
Terms Typically Offered: Fall.

ENGL 404 Studies in British and Commonwealth Literature II 3 Credits
Analysis of British and Commonwealth literary works after 1800. Specific course content varies and may focus on genre, author, movement, theme, period, or theory.
Prerequisites: ENGL 112.
Terms Typically Offered: Spring.

ENGL 415 American Folklore 3 Credits
Explores folk expressions of values, beliefs, traditions, attitudes, and worldviews.
Prerequisites: ENGL 112.

ENGL 421 Introduction to Literary Theory and Criticism 3 Credits
Survey of literary and critical theory, with an emphasis on its application to literary and cultural representations.
Prerequisites: ENGL 210.
Terms Typically Offered: Fall.

ENGL 423 Genre Studies 3 Credits
History and development of an individual literary genre.
Prerequisites: ENGL 112.

ENGL 425 Scientific Writing 3 Credits
Theoretical and practical studies of writing in the sciences (science, medicine, and environmental writing). Addresses writing for both popular and professional audiences. Coverage of both print and online instructional materials. Safety, ethical, and liability issues.
Prerequisites: ENGL 112 or 45 credit hours.
Terms Typically Offered: Fall, Spring.

ENGL 427 Writing for Industry 3 Credits
Theoretical and practical studies of writing for industrial fields. Addresses writing for both popular and professional audiences. Covers both print and online instructional materials. Safety, ethical, and liability issues.
Prerequisites: ENGL 112 or 45 credit hours.

ENGL 435 American Literature 1900-1945 3 Credits
An in-depth study of various significant texts of the period, as well as other relevant texts. Texts and authors are chosen by the instructor to provide a thorough study of selected important historical, philosophical and literary aspects of the period.
Prerequisites: ENGL 112.

ENGL 436 American Literature 1945-Present 3 Credits
An in-depth study of various significant texts of the period, as well as other relevant texts. Texts and authors are chosen by the instructor to provide a thorough study of selected important historical, philosophical and literary aspects of the period.
Prerequisites: ENGL 112.

ENGL 438 Ethnic Experiences in U.S. Literature 3 Credits
Survey of literary works written throughout United States history by African-American, Hispanic-American, Native American and Asian American authors, as well as by authors from other under represented cultural communities.
Prerequisites: ENGL 112.

ENGL 440 History of the English Language 3 Credits
Historical development of the English language and its internal formation as shaped by external political, social, and intellectual forces.
Prerequisites: ENGL 112 and junior standing.
Terms Typically Offered: Spring.

ENGL 444 Studies in Identity 3 Credits
Analysis of identity construction in literary and cultural texts.
Prerequisites: ENGL 112.
Terms Typically Offered: Fall.

ENGL 451 Understanding and Using English Grammar 3 Credits
Art of using English grammar effectively for written and spoken communication.
Prerequisites: ENGL 112 and junior standing.
Terms Typically Offered: Fall, Spring.

ENGL 470 18th Century British Literature 3 Credits
Conceptual framework of the Enlightenment in England's representative writers.
Prerequisites: ENGL 112.

ENGL 471 British Romanticism 3 Credits
Exploration of the poetry, prose, and drama of the Romantic period in Britain. Text and authors are chosen by the instructor to provide a thorough study of selected historical, philosophical and literary aspects of the period.
Prerequisites: ENGL 112.

ENGL 475 Victorian Literature 3 Credits
Representative works of post-Romantic British literature.
Prerequisites: ENGL 112.

ENGL 478 20th Century British Literature 3 Credits
Major works from 20th Century British writers.
Prerequisites: ENGL 112.

ENGL 491 Composition Theory and Practice 3 Credits
Theory and practice of composing as it applies to teaching English in the junior and senior high schools; historical context, contemporary theory, and current pedagogy in the field of composition studies.
Prerequisites: Senior standing in teacher certification program.
Terms Typically Offered: Spring.

ENGL 492 Seminar in Writing 3 Credits
Capstone course focusing on genre choice (novel, short story, poetry, memoir, creative non-fiction, screenplay, playwriting). Research into professional and publishing considerations. Development of a creative portfolio.
Prerequisites: ENGL 210, ENGL 250, and junior standing.
Terms Typically Offered: Spring.

ENGL 494 Seminar in Literature 3 Credits
Analysis of an important literary work or works, requiring students to interpret, criticize, and present research.
Prerequisites: ENGL 210 and senior standing, or permission of instructor.
Course may be taken 4 times for credit.

ENGL 495 Independent Study 1-4 Credits
Prerequisites: ENGL 112.
Course may be taken multiple times up to maximum of 6 credit hours.

ENGL 496 Topics 1-3 Credits
Prerequisites: ENGL 112.
Course may be taken multiple times up to maximum of 15 credit hours.

ENGL 497 Internship in Business, Technical, and Professional Communication 3 Credits
An opportunity to write, edit, and design business and technical documents in a professional setting. Projects may include reports, proposals, grants, manuals, brochures and newsletters.
Prerequisites: Senior standing or permission of instructor.

ENGL 499 Internship 1-12 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ENGL 521 Seminar in Literary Theory 3 Credits
Study of the content and application of literary theoretical frameworks.
Prerequisites: Admission to graduate studies.
Terms Typically Offered: Spring.

ENGL 543 Language Systems and Linguistic Diversity 3 Credits
Advanced study in the nature of language, first and second language acquisition, and issues relevant to linguistic diversity and multicultural literacies. Discussions will focus on education within and across home, community, and school contexts, including a focus on home-school-community relationships.
Prerequisites: Admission to graduate studies.
Terms Typically Offered: Fall, Spring.

ENGL 550 Studies in Creative Writing 3 Credits
Studies in the history, development, theory, and practice of creative writing with an emphasis on understanding genre.
Prerequisites: Admission to graduate study.
Terms Typically Offered: Fall, Spring, Summer.

ENGL 554 Topics in British and Commonwealth Literature 3 Credits
Analysis of an important British or Commonwealth literary work or works requiring students to interpret, criticize, and present research.
Prerequisites: Admission to graduate studies.
Terms Typically Offered: Fall, Spring.

ENGL 561 Topics in American Literature 3 Credits
Analysis of an important American literary work or works requiring students to interpret, criticize, and present research.
Prerequisites: Admission to graduate studies.
Terms Typically Offered: Fall, Spring.

ENGL 586 Seminar in Rhetoric and Composition 3 Credits
Theory and practice of rhetoric and composition, including historical contexts, contemporary theories, and current pedagogy.
Prerequisites: Admission to graduate studies.
Terms Typically Offered: Fall, Spring, Summer.

ENGL 596 Topics 1-3 Credits
Prerequisites: Bachelor's degree.
Course may be taken multiple times up to maximum of 15 credit hours.

English-Basic Writing (ENGC)

Courses

ENGC 090 College Preparatory Reading and Composition 3 Credits
Development of proficiency in reading and writing for college. Emphasis on applying analytic and critical reading skills in a variety of texts and an introduction to the writing process. Prepares students for college-level essential learning courses.

ENGC 092 Writing Studio 1 Credit
This course is designed to offer supplemental support for students in ENGL 111 and writing intensive courses across the disciplines. This is a corequisite with ENGL 111 or social science 100 discipline strands for students with Accuplacer scores requiring enrollment.

ENGC 094 Reading & Writing Essentials 2 Credits
Introduction to critical thinking as students explore reading and writing for specific purposes and audiences. Students develop skills required for college-level writing while applying strategies for improving comprehension, developing vocabulary, and increasing speed for reading college textbooks. Successful completion of this course will prepare students for college-level general education courses with a corequisite reading/writing studio.
Corequisites: ENGC 090.

ENGC 096 Topics: 1-4 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Entrepreneurship (ENTR)

Courses

ENTR 196 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ENTR 296 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ENTR 300 Small Business and Entrepreneurship 3 Credits
Aspects of management uniquely important to small business firms; the economic and social environment in which they function.

ENTR 340 Applied Financial Management for Emerging Businesses 3 Credits
Overview of basic accounting and finance concepts for non-business majors owning or employed by small business/entrepreneurial ventures.

ENTR 343 Exploring Entrepreneur Opportunities 3 Credits
Introduction to innovation and opportunity recognition, including development of business ideas, business model validation and business feasibility analysis.
Equivalent Course(s): ENGR 353

ENTR 350 The Entrepreneurial Mindset 3 Credits
Application of entrepreneurial perspectives in diverse business environments and roles. New perspectives and latest developments in entrepreneurship, ethnic and immigrant ventures, entrepreneurial leadership, innovation, and self-awareness. Entrepreneurship as a source of socioeconomic and institutional change in a global setting.
Prerequisites: ENTR 300 or permission of instructor.

ENTR 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

ENTR 396 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ENTR 401 Entrepreneurial Finance 3 Credits
Overview of financial management for the entrepreneurial venture, freelancer, or small business. Exposure to financial options from bootstrapping to venture capital. Development of skills using Quickbooks and Excel as tools for personal finance, business startup, and small business management.
Prerequisites: FINA 301.

ENTR 450 Entrepreneurship 3 Credits
Analysis of managerial problems of small business, preparing a business plan, case studies, and individual reports of local small business enterprises. Understanding of elementary accounting, finance, and business law required.
Prerequisites: ACCT 201, MANG 201, MARK 231, FINA 301, and students choose either MARK 350 or CISB 341.

ENTR 496 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ENTR 499 Internship 1-9 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ENTR 550 Entrepreneurship 3 Credits
Takes the student through activities that an entrepreneur would encounter in the small business start-up process. Topics will center around marketing, managerial, legal, financial and informational needs of the new venture. The use of cases, real life projects and Internet resources will be used extensively during the course.

Environmental Science (ENVS)

Courses

ENVS 101 Introduction to Environmental Science-GTSC2 3 Credits
Impact of resource use and pollution on the earth's environment and biota. Scientific approach to solving environmental problems and the impacts of values upon global environmental decisions examined. General environmental awareness and literacy emphasized.
Essential Learning Categories: Natural Sciences
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring, Summer.

ENVS 104 Environmental Science: Global Sustainability 3 Credits
Examination of local to global environmental issues. Includes human population dynamics and impact of agriculture on the environment, ecosystem function, energy use and sustainable development, air, water and soil pollution, climate change, and environmental policy. Critical evaluation of readings from historical and modern environmental topics supplement lectures.
Prerequisites: Declared ENVS major or minor.
Terms Typically Offered: Fall, Spring.

ENVS 105 Readings in Environmental Science 1 Credit
Critical readings and discussions in environmental science.
Prerequisites: ENVS 101.
Terms Typically Offered: Spring.

ENVS 196 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ENVS 204 Introduction to Ecosystem Management 3 Credits
Scientific management of natural resources in a changing environment. Problem solving emphasized in a case study approach to ecosystem management. Theories of ecology, economics, fisheries and wildlife management, biology, and sociology to solve problems using realistic and complex landscape scenarios.
Prerequisites: ENVS 101 or ENVS 104.
Corequisites: ENVS 204L.
Terms Typically Offered: Fall.

ENVS 204L Introduction to Ecosystem Management Laboratory 1 Credit
Scientific management of natural resources in a changing environment. Problem solving emphasized in a case study approach to ecosystem management. Theories of ecology, economics, fisheries and wildlife management, biology, and sociology to solve problems using realistic and complex landscape scenarios.
Prerequisites: ENVS 104 or ENVS 101.
Corequisites: ENVS 204.
Terms Typically Offered: Fall.
Fees: Yes.

ENVS 212 Environmental Health and Safety 2 Credits
Examination of environmental health and safety issues associated with hazardous materials. Includes basic toxicology, threat assessment, and control strategies. Meets 40-hour OSHA training requirement for hazardous waste operations.
Prerequisites: ENVS 221.

ENVS 221 Science and Technology of Pollution Control 3 Credits
Introduction to scientific, engineering, and technical elements of pollution control. Includes pollutant characteristics, investigation and cleanup of contaminated sites, waste treatment (air emissions, wastewater discharges, hazardous waste), waste minimization, life cycle analysis, and industrial ecology. Lab focuses on site investigation skills, design and operation of selected treatment technologies, and waste minimization audits.
Prerequisites: ENVS 104; mastery of high school algebra; CHEM 121 or CHEM 131 recommended.
Corequisites: ENVS 221L.

ENVS 221L Science and Technology of Pollution Control Laboratory 1 Credit
Lab component for ENVS 221.
Prerequisites: ENVS 101 or ENVS 104; mastery of high school algebra; CHEM 121 or CHEM 131 recommended.
Corequisites: ENVS 221.
Fees: Yes.

ENVS 296 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ENVS 301 Environmental Project Management 2 Credits
Basic practices of effective project management, including proposal preparation, planning, scheduling, cost estimating, cost and progress tracking, and team building.
Prerequisites: Any one of the following: ENVS 204, ENVS 221, ENVS 331, ENVS 340.

ENVS 304 Environmental Science for Outdoor Recreation 3 Credits
Introduction to major western ecosystems, their historical and current management, and relevant environmental problems. Examines the effects of outdoor recreation on ecosystems. Topics include the effects of climate change on both ecosystems and outdoor recreation.
Prerequisites: ENVS 101.
Terms Typically Offered: Spring.

ENVS 312 Soil Science and Sustainability 3 Credits
Physical, chemical and biological properties of soils. Function of soils emphasized. Application of soil science to sustainable use of soils in natural and agricultural settings.
Prerequisites: CHEM 121 or higher and ENVS 204/ENVS 204L, or permission of instructor.
Corequisites: ENVS 312L.

ENVS 312L Soil Science and Sustainability Laboratory 1 Credit
Lab component required for ENVS 312.
Prerequisites: CHEM 121 or higher and ENVS 204/ENVS 204L, or permission of instructor.
Corequisites: ENVS 312.
Fees: Yes.

ENVS 315 Mined Land Rehabilitation 2 Credits
Principles and practices of mined land reclamation. Topics include mining techniques, disturbances caused by mining, regulations, closure of mine features, soil preparation, revegetation, and monitoring.
Prerequisites: ENVS 455 or ENVS 312/ENVS 312L (may be taken concurrently).
Fees: Yes.

ENVS 318 Applied Programming in R for Natural Sciences 3 Credits
Introduction to applications of the R programming language to the natural science fields. Concepts such as data types, techniques for manipulation, and how to implement fundamental programming tasks are covered. Course emphasizes how to prepare and manipulate data structures for future analyses and uses real data in the natural sciences.
Prerequisites: MATH 113.
Terms Typically Offered: Fall.

ENVS 321 Environmental Risk Analysis 3 Credits
Assessment, management, and control of risk from toxic substances in the environment. Topics include basic elements of toxicity testing and epidemiology, chemical fate in the environment, exposure assessment, uncertainty in risk estimates, approaches to risk management, and risk communication.
Prerequisites: ENVS 221/ENVS 221L, and MATH 113.

ENVS 331 Water Quality 3 Credits
Physical, chemical, and biological properties of aquatic systems. Includes movement of water in the watershed, stream classification and stability, lake circulation, aquatic ecology, chemistry and biology of natural and polluted waters, water quality monitoring, regulation and protection of surface water, and watershed assessment and management. Lab focuses on practical skills and field measurements culminating in assessment of a local watershed.
Prerequisites: CHEM 121 or higher; and STAT 200.
Corequisites: ENVS 331L.
Terms Typically Offered: Fall.

ENVS 331L Water Quality Laboratory 1 Credit
Physical, chemical, and biological properties of aquatic systems. Includes movement of water in the watershed, stream classification and stability, lake circulation, aquatic ecology, chemistry and biology of natural and polluted waters, water quality monitoring, regulation and protection of surface water, and watershed assessment and management. Lab focuses on practical skills and field measurements culminating in an assessment of a local watershed. Lab component required for ENVS 331.
Prerequisites: CHEM 121 or higher; and STAT 200.
Corequisites: ENVS 331.
Terms Typically Offered: Fall.
Fees: Yes.

ENVS 337 Stream Biomonitoring 3 Credits
Examination of the structure and organization of macroinvertebrate assemblages in streams and rivers. Topics include sample collection, sample preservation, sample identification, and analysis using the State of Colorado Multimetric Index for assessing water quality.
Prerequisites: ENVS 204/ENVS 204L or BIOL 105/BIOL 105L.
Corequisites: ENVS 337L.
Terms Typically Offered: Fall.

ENVS 337L Stream Biomonitoring Laboratory 1 Credit
Examination of the structure and organization of macroinvertebrate assemblages in streams and rivers. Topics include sample collection, sample preservation, sample identification, and analysis using the State of Colorado Multimetric Index for assessing water quality.
Prerequisites: ENVS 204/ENVS 204L or BIOL 105/BIOL 105L.
Corequisites: ENVS 337.
Terms Typically Offered: Fall.

ENVS 340 Applied Atmospheric Science 3 Credits
Examination of the atmosphere and air pollution. Includes physical and chemical properties of the atmosphere, meteorology, air pollutant sources and effects, monitoring, pollutant dispersion, emission inventory, management of emissions, and regulation of air quality.
Prerequisites: CHEM 121 or CHEM 131.

ENVS 350 Ecology and Management of Shrublands and Grasslands 3 Credits
Examination of ecological principles in determining the structure, function, and management of North American grasslands and shrublands. Three one-hour lectures and one three-hour lab per week. Two Saturday labs may be required.
Prerequisites: STAT 200 and ENVS 204/ENVS 204L.
Corequisites: ENVS 350L.

ENVS 350L Ecology and Management of Shrublands and Grasslands Laboratory 1 Credit
Lab component required for ENVS 350.
Prerequisites: STAT 200 and ENVS 204/ENVS 204L.
Corequisites: ENVS 350.
Fees: Yes.

ENVS 354 Forest Ecology and Management 3 Credits
Examination of the structure and function of trees and forests. Topics include forest stand development, carbon cycling, nutrient cycling, forest disturbances, and basic practices of sustainable forest management.
Prerequisites: ENVS 204/ENVS 204L.

ENVS 360 Fire Ecology 3 Credits
Examination of the ecological effects of fire on forests, shrublands, and grasslands. Includes fire effects on plants, animals, soil, and water, as well as using fire as a restoration tool.
Prerequisites: STAT 200 and ENVS 204/ENVS 204L.
Corequisites: ENVS 360L.

ENVS 360L Fire Ecology Laboratory 1 Credit
Field experience examining the ecological effects of fire on forests, shrublands, and grasslands of the Colorado Plateau. Includes field and lab studies that test the effects of fire on plants, animals, soil, and water. One 3-hour lab per week. May require 2 Saturday labs.
Prerequisites: STAT 200 and ENVS 204/ENVS 204L.
Corequisites: ENVS 360.
Fees: Yes.

ENVS 370 Renewable Energy 3 Credits
Introduction to renewable energy resources from a technical perspective with an emphasis on sustainability. Includes concepts of energy and power, units of measure, sources and forms of energy, uses of energy, energy efficiency, electricity, solar thermal and photovoltaics, bioenergy, hydropower, tidal power, wave power, wind power, geothermal, hydrogen, efficient building design, and integration of renewables with current energy supplies.
Prerequisites: MATH 113 or higher.
Equivalent Course(s): GEOL 370
Terms Typically Offered: Fall.

ENVS 373 Climate Change Adaptation 3 Credits
Climate change vulnerability and adaptation strategies in natural resource management. Includes the scientific basis of climate change and assessing the exposure, sensitivity, and adaptive capacity of species and ecosystems to climate change.
Prerequisites: ENVS 204.
Terms Typically Offered: Spring.

ENVS 374 Sustainable Building 3 Credits
Principles and practices of "green" building. Topics include philosophy of sustainable design, site development, passive heating and cooling, innovative structural systems and materials, energy supply and conservation, water and waste water management, indoor air quality, and case studies.

ENVS 376 Ecological Design and Technology 3 Credits
Examination of ecosystem-based technology to benefit both humans and the environment. Topics covered include the philosophy of ecological design and technology, relevant ecological principles, and ecological technologies including treatment wetlands, anaerobic digesters, algal flow ways, ecological treatment systems, rain gardens, green walls, and green roofs.
Prerequisites: CHEM 121/CHEM 121L, ENVS 204, and MATH 113.
Terms Typically Offered: Fall.

ENVS 377 Systems Thinking in Environmental Science 3 Credits
Exploration of systems thinking as an approach to environmental issues. Topics covered include the meaning of systems and systems thinking, examining systems using the “triple P” framework (people, planet, profit), drawing system diagrams, conducting life cycle assessment and eMergy analysis to quantify environmental impacts, and modeling systems.
Prerequisites: ENVS 204 and MATH 113.
Terms Typically Offered: Spring.
Fees: Yes.

ENVS 378 Permaculture Design 3 Credits
Practical application of ecology to design of sustainable human and agricultural systems. Topics include permaculture principles, design strategies, sustainable agriculture, natural building, cooperative economics, and neighborhood design. Students work in teams to complete a design project for a local site.
Corequisites: ENVS 378L.
Terms Typically Offered: Fall, Summer.

ENVS 378L Permaculture Design Laboratory 1 Credit
Practical application of ecology to design of sustainable human and agricultural systems. Topics include permaculture principles, design strategies, sustainable agriculture, natural building, cooperative economics, and neighborhood design. Students work in teams to complete a design project for a local site.
Corequisites: ENVS 378.
Terms Typically Offered: Fall, Summer.

ENVS 394 Natural Resources of the West 1 Credit
Seminars covering topics related to natural resources including water, soil, land, mineral and energy resources in the western United States. Guest speakers are invited from the academic community, industry or government agencies to give formal oral presentations following by informal discussion with students and faculty.
Equivalent Course(s): GEOL 394
Course may be taken multiple times up to maximum of 4 credit hours.

ENVS 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

ENVS 396 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ENVS 396L Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ENVS 410 Environmental Regulatory Compliance 3 Credits
Examination of regulatory requirements pertaining to air pollution, water pollution, hazardous materials, and radioactive materials. Additional topics include enforcement, compliance management systems, compliance auditing, and innovative approaches to regulation.
Prerequisites: ENVS 221, and junior or senior standing.

ENVS 413 Environmental Fate and Transport of Contaminants 3 Credits
Physical, chemical, and biological factors influencing the persistence and migration of chemicals in the environment. Includes consideration of air, surface water, soil, and ground water. Emphasis on quantitative problem solving.
Prerequisites: CHEM 121 or CHEM 132; and MATH 119, MATH 119A and MATH 119B, MATH 131, or MATH 151.
Terms Typically Offered: Spring.

ENVS 420 Pollution Investigation & Monitoring 3 Credits
Survey of field sampling and analytical methods for study of environmental systems. Topics include sampling design, regulatory issues, quality assurance, quality control, data interpretation, and reporting. Three one-hour lectures and one three-hour laboratory per week.
Prerequisites: CHEM 121 or CHEM 131, and STAT 200; ENVS 221/ENVS 221L recommended.
Corequisites: ENVS 420L.

ENVS 420L Pollution Investigation & Monitoring Laboratory 1 Credit
Examination of strategies and techniques for investigating contaminated sites and monitoring environmental pollutants. Topics include Phase I assessments, development and implementation of sampling and monitoring plans, quality assurance, methods of analysis, and data interpretation and presentation.
Prerequisites: CHEM 121 or CHEM 131, and STAT 200; ENVS 221/ENVS 221L recommended.
Corequisites: ENVS 420.
Fees: Yes.

ENVS 431 Water and Wastewater Treatment 3 Credits
Examination of water and wastewater treatment processes including physical, chemical, and biological treatment technologies. Emphasis on unit process design and modeling.
Prerequisites: ENVS 331.

ENVS 433 Restoration of Aquatic Systems 3 Credits
Principles and practices of restoring the functions and values of streams, ponds, and wetlands. Addresses physical, chemical, and biological aspects of these aquatic systems.
Prerequisites: ENVS 331/ENVS 331L.

ENVS 455 Restoration Ecology 3 Credits
Examination of principles and techniques for restoration of community characteristics and ecosystem functions to disturbed lands. Lecture and lab emphasize practical application of ecological principles to restoration culminating in an independent project of designing a restoration project for a local area.
Prerequisites: ENVS 204 and ENVS 312, or permission of instructor.
Corequisites: ENVS 455L.

ENVS 455L Restoration Ecology Laboratory 1 Credit
Lab component required for ENVS 455.
Prerequisites: ENVS 204 and ENVS 312, or permission of instructor.
Corequisites: ENVS 455.
Fees: Yes.

ENVS 460 Fire Management 3 Credits
Examination of principles and current topics in fire management, including fire behavior, prescribed fire/smoke management, fuels/fuels management, wildfire control, fire in the wildland-urban interface, and fire policy.
Prerequisites: ENVS 360/ENVS 360L, STAT 200, one semester of biology.
Corequisites: ENVS 460L.

ENVS 460L Fire Management Laboratory 1 Credit
Field, lab, and computer modeling experience in predicting fire behavior, planning prescribed burns, managing hazardous fuels, and assessing wildfire risk in the wildland-urban interface.
Prerequisites: ENVS 360/ENVS 360L, STAT 200, one semester of biology.
Corequisites: ENVS 460.
Fees: Yes.

ENVS 475 Experimental Design and Statistical Analysis in Environmental Science 3 Credits
Examination of principles and techniques for designing experiments and analyzing data in environmental sciences. Emphasis on practical application of analysis techniques using environmental data with computer applications.
Prerequisites: ENVS 204 or ENVS 221, STAT 200, and 6 upper division credits; or permission of instructor.

ENVS 492 Capstone in Environmental Science and Technology 3 Credits
Small-group environmental projects for outside organizations. Preparation of project proposals, project planning and implementation, project reports, and oral presentations to clients. Exit exams for the Environmental Science and Technology major are administered as part of this course.
Prerequisites: Senior standing.
Terms Typically Offered: Fall, Spring.

ENVS 495 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

ENVS 496 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

ENVS 497 Structured Research 1-3 Credits
Research in environmental science under the direct guidance of a faculty member. Designed for junior and senior level students.
Prerequisites: Permission of instructor.
Course may be taken multiple times up to maximum of 6 credit hours.

ENVS 499 Internship 1-4 Credits
Work experience for a non-academic organization on environmental projects. Requires 45 contact hours per credit hour, a final report, and oral presentation. Available as an elective for Environmental Science & Technology majors.
Prerequisites: Junior or senior standing in the Environmental Science & Technology program or permission of instructor.
Course may be taken multiple times up to maximum of 15 credit hours.

ENVS 596 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Essential Learning (ESSL)

Courses

ESSL 200 Essential Speech 1 Credit
Development of confidence and competence in speaking through cross-curricular topics generated from individual Maverick Milestone coursework.
Prerequisites: ENGL 112, MATH 110 or higher, and at least 45 credit hours completed.
Corequisites: ESSL 290.
Terms Typically Offered: Fall, Spring, Summer.

ESSL 290 Maverick Milestone 3 Credits
Interdisciplinary, thematically-oriented transition from the Essential Learning program to specialized programs. Develop the ability to solve problems and approach ideas using more than one set of intellectual tools. Taken before the student completes 75 credit hours.
Prerequisites: ENGL 112, MATH 110 or higher, at least 45 credit hours completed.
Corequisites: ESSL 200.

Finance (FINA)

Courses

FINA 300 Personal Finance 1 Credit
Development of financial and economic literacy to improve personal decision making in the areas of: personal budgeting; developing a personal financial plan including consumer credit, taxes and purchasing a car and/or home; money and interest rates; investing and retirement.
Terms Typically Offered: Fall, Spring.

FINA 301 Managerial Finance 3 Credits
Acquisition, allocation, and management of funds within the business enterprise. Financial goals, funds flow, valuation, capital budgeting, and financing strategies.
Prerequisites: ACCT 201, and CISB 241 or STAT 241.

FINA 310 Risk Management 3 Credits
Identification of risk, risk analysis, risk evaluation and methods of resolving risk issues in a business environment. Insurance as a risk management tool discussed.
Prerequisites: Permission of instructor.

FINA 320 Fundamentals of Investments 3 Credits
Introduction to the theory and practices of investment valuation and management. Application of data analytics in the investment process. Topics include: risk and return, investor objectives and strategies, the types and characteristics of investment instruments, the process of buying and selling securities, investment valuation and yields, and portfolio management.
Prerequisites: FINA 301.
Terms Typically Offered: Fall, Spring.

FINA 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

FINA 396 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

FINA 412 Life and Health Insurance Licensure and Financial Planning 3 Credits
Analysis of personal and business life and health insurance policies. Focus includes coverage need determination, underwriting, marketing, financial, ratemaking, reserving and other insurance considerations.
Prerequisites: Permission of instructor.

FINA 415 Property and Liability Insurance Licensure 3 Credits
Analysis of personal and business property and liability insurance policies. Focus includes coverage need determination, underwriting, marketing, financial, ratemaking, reserving, and other insurance considerations.
Prerequisites: Permission of instructor.

FINA 420 Security Analysis and Portfolio Management 3 Credits
Extension of the theory and practices of investment valuation and management. Topics include risk and return, market efficiency, economic and industry analysis, fundamental and technical analysis, bond analysis and management strategies, portfolio management and performance evaluation, and the characteristics and uses of options, rights, warrants, convertibles, and futures.
Prerequisites: FINA 301 and FINA 320.

FINA 431 International Financial Management 3 Credits
Theory and practices of financial management in international product and capital marketplaces. Application of data analytics to financial datasets. Topics include: international flow of funds, exchange rate determinants and risk hedging, international arbitrage and interest rate parity, purchasing power parity and the international Fisher effect, instruments of international trade financing, and multinational capital budgeting, costs of capital, and capital structure.
Prerequisites: FINA 301.
Terms Typically Offered: Fall, Spring.

FINA 451 Financial Management: Theory and Applications 3 Credits
Extension of the theory and practices of financial management using a case analysis approach. Topics include: financial statement analysis, financial planning and forecasting, risk and return, capital budgeting, lease financing, cost of capital, capital structure, dividend policy, and risk management.
Prerequisites: FINA 301 and senior standing.
Terms Typically Offered: Fall, Spring.

FINA 495 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

FINA 496 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

FINA 500 Financial Strategy 3 Credits
Introduction and development of analysis of the financial aspects of a corporation using both theory and application. Topics include capital markets, global economic factors that affect the corporation, capital asset pricing model, portfolio analysis, and capital structure policy.

Fine Arts (FINE)

Courses

FINE 101 The Living Arts-GTAH1 3 Credits
Interdisciplinary survey of human creative efforts as they relate to each other. Art, drama, and music are compared with similarities stressed.
Essential Learning Categories: Fine Arts
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

FINE 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

FINE 396 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

FINE 495 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

FINE 496 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

FINE 499 Internship 8 or 15 Credits
Part or full-time work in various aspects of arts management. Sites may include galleries, musical, theatrical or other performing organizations, arts centers, or other situations that meet the instructor's approval. Half-time equals eight semester hours credit; full-time equals 15 semester hours credit.
Prerequisites: Junior standing in visual or performing arts. May also require selected courses in business, social science, etc. as appropriate to the internship sought.
Course may be taken multiple times up to maximum of 15 credit hours.

Fire Science Technology (FSTR)

Courses

FSTR 100 Fire Fighter I 9 Credits
Preparation to meet the requirements necessary to perform at the first level of progression, as identified in National Fire Protection Association (NFPA) 1001 Firefighter Professional Qualifications.
Terms Typically Offered: Fall.

FSTR 101 Fire Fighter II 3 Credits
Exploration of advanced skills and proficiency in firefighting beyond the Firefighter I level. Further develops strategies and tactics in incident command, operations and leadership.
Prerequisites: FSTR 100 and FSTR 107.
Terms Typically Offered: Spring.

FSTR 102 Principles of Emergency Service Suppression 3 Credits
Introduction to fire protection; career opportunities in fire protection and related fields; philosophy and history of fire protection/service; fire loss analysis; organization and function of public and private fire protection services; laws and regulations affecting the fire service; and basic fire chemistry and physics.
Terms Typically Offered: Fall.

FSTR 103 Fire Behavior and Combustion 3 Credits
Exploration of the theories and fundamentals of how fires start and spread and how they are controlled. Prepares the student to comprehend fire behavior, fire suppression and the processes of combustion.
Terms Typically Offered: Fall.
Fees: Yes.

FSTR 105 Building Construction for Fire Protection 3 Credits
Components of building construction that relate to fire and life safety. The focus of this course is on firefighter safety. The elements of consideration and design of structures are shown to be key factors when inspecting buildings, preplanning fire operations, and operating at emergencies.
Terms Typically Offered: Fall.

FSTR 106 Fire Prevention 3 Credits
Examination of fundamental information regarding the history and philosophy of fire prevention, organization and operation of a fire prevention bureau, use of fire codes, identification and correction of fire hazards, and the relationships of fire prevention with built-in fire protection systems, fire investigation, and fire and life-safety education.
Terms Typically Offered: Spring.
Fees: Yes.

FSTR 107 Hazardous Materials Operations Level I 3 Credits
Introduction to hazardous materials incidents, recognizing and identifying hazardous materials, planning response, implementing response procedures, decision making, and continued evaluation at the awareness and operation level.
Corequisites: FSTR 100.
Terms Typically Offered: Fall.

FSTR 109 Occupational Safety and Health for Fire 3 Credits
Introduction to the basic concepts of occupational health and safety as it relates to emergency service organizations. Topics include risk evaluation and control procedures for fire stations, training sites, emergency vehicles, and emergency situations involving fire, EMS, hazardous materials, and technical rescue.
Terms Typically Offered: Fall.

FSTR 151 Driver-Operator 3 Credits
Basic knowledge and skills to safely operate a fire apparatus according to the NFPA professional standard. The course enables students to display and demonstrate knowledge of fire apparatus, operation of apparatus, pumps and pumping, hydraulics calculations, maintenance, and testing.
Terms Typically Offered: Spring.
Fees: Yes.

FSTR 201 Instructional Methodology 3 Credits
Roles and responsibilities of the fire service instructor. Includes oral communication skills; concepts of learning; planning and development of lesson plans, instructional materials, and delivery methods; testing and evaluations; records and reports; and demonstration of instructional abilities. This course prepares the student for Fire Instructor I State Certification.
Terms Typically Offered: Spring.

FSTR 202 Strategy and Tactics 3 Credits
In-depth analysis of the principles of fire control through utilization of personnel, equipment, and extinguishing agents on the fire ground. Explores the main functions within the ICS system and how they interrelate during an incident.
Terms Typically Offered: Spring.
Fees: Yes.

FSTR 203 Fire Hydraulics and Water Supply 3 Credits
Foundation of theoretical knowledge in order to understand the principles of the use of water in fire protection and to apply hydraulic principles to analyze and to solve water supply problems.
Prerequisites: FSTR 105 and MATH 107.
Terms Typically Offered: Fall, Spring.

FSTR 204 Principles of Code Enforcement 3 Credits
Fundamental knowledge of the role of code enforcement in a comprehensive fire prevention program.
Prerequisites: FSTR 102 and FSTR 105.
Corequisites: FSTR 106 and FSTR 209.
Terms Typically Offered: Spring.

FSTR 205 Fire Investigation I 3 Credits
Fundamentals and technical knowledge needed for proper fire scene interpretations, including recognizing and conducting origin and cause, preservation of evidence and documentation, scene security, motives of the fire setter, and types of fire causes.
Prerequisites: FSTR 102.
Terms Typically Offered: Fall, Spring.

FSTR 206 Fire Officer Supervision and Leadership 3 Credits
Training to develop a better understanding of the roles and responsibilities of Company Officers (COs) in preparing their company for incident operations. This course is designed to clarify the transition from firefighter to CO and the new roles relating to leadership and safety.
Prerequisites: FSTR 102 and FSTR 202.
Terms Typically Offered: Spring.

FSTR 209 Fire Protection Systems 3 Credits
Features of design and operation of fire alarm systems, water-based fire suppression systems, special hazard fire suppression systems, water supply for fire protection and portable fire extinguishers.
Terms Typically Offered: Spring.
Fees: Yes.

FSTR 252 Fire Investigation II 3 Credits
Advanced technical knowledge on rule of law, fire scene analysis, fire behavior, evidence collection and preservation, scene documentation, case preparation, and testifying.
Prerequisites: FSTR 100, FSTR 102, FSTR 103, and FSTR 205.
Terms Typically Offered: Fall, Spring.

Foreign Language-American Sign Language (FLSL)

Courses

FLSL 111 American Sign Language I 3 Credits
Basic receptive and expressive skill acquisition in American Sign Language (ASL) and other signing modes. Includes approximately 400 vocabulary items; the manual alphanumeric system; interrogatives; subject, object, possessive pronouns; simple present, past, and future verb tense formation.
Terms Typically Offered: Fall.

FLSL 112 American Sign Language II 3 Credits
Receptive and expressive skill practice in American Sign Language (ASL) and other signing modes. Includes approximately 800 vocabulary terms; classifiers; numeral incorporation; fingerspelling, loan signs, directional verbs; body and facial language.
Prerequisites: FLSL 111.
Terms Typically Offered: Spring.

FLSL 296 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Foreign Language-French (FLAF)

Courses

FLAF 111 First-Year French I 3 Credits
Basic competency in understanding, speaking, reading, and writing French. Beginning familiarity with French culture.
Terms Typically Offered: Fall.

FLAF 112 First-Year French II 3 Credits
Continued work on basic competency in understanding, speaking, reading, and writing French. Increasing familiarity with French culture.
Prerequisites: FLAF 111.
Terms Typically Offered: Spring.

FLAF 295 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

Foreign Language-German (FLAG)

Courses

FLAG 111 First-Year German I 3 Credits
Introduction to the German language.
Terms Typically Offered: Fall.

FLAG 112 First-Year German II 3 Credits
Continued introduction to the German language.
Terms Typically Offered: Spring.

Foreign Language-Greek (FLGK)

Courses

FLGK 111 Introductory Greek I 3 Credits
An introduction to the fundamentals of reading ancient Greek. Emphasizes basic vocabulary and grammar. Explores aspects of Greek literature and culture. Provides a foundation for the study of ancient Greece. Develops a practical understanding of English.
Terms Typically Offered: Fall.

FLGK 112 Introductory Greek II 3 Credits
Continuation of the fundamentals of reading ancient Greek. Emphasizes basic vocabulary and grammar. Explores basic vocabulary and grammar. Explores aspects of Greek literature and culture. Provides a foundation for the study of ancient Greece. Develops a practical understanding of English.
Prerequisites: FLGK 111.
Terms Typically Offered: Spring.

FLGK 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

Foreign Language-Italian (FLAI)

Courses

FLAI 111 First-Year Italian I 3 Credits
Introduction to Italian. Basic competency in understanding, speaking, reading, and writing Italian.
Terms Typically Offered: Fall.

FLAI 112 First-Year Italian II 3 Credits
Continued work on basic competency in Italian. Increasing familiarity with Italian culture.
Prerequisites: FLAI 111.
Terms Typically Offered: Spring.

Foreign Language-Japanese (FLAJ)

Courses

FLAJ 111 Beginning Japanese I 3 Credits
Basic competency in understanding, speaking, reading, and writing Japanese. Beginning familiarity with Japanese culture.
Terms Typically Offered: Fall.

FLAJ 112 Beginning Japanese II 3 Credits
Continued work on basic competency in understanding, speaking, reading, and writing Japanese. Increasing familiarity with Japanese culture.
Prerequisites: FLAJ 111.
Terms Typically Offered: Spring.

Foreign Language-Latin (FLLT)

Courses

FLLT 111 Introductory Latin I 3 Credits
Introduction to reading classical Latin. Emphasizes basic vocabulary and grammar. Explores aspects of Latin literature and Roman culture. Provides a foundation for the study of ancient Rome. Develops a practical understanding of English.
Terms Typically Offered: Fall.

FLLT 112 Introductory Latin II 3 Credits
Continued practice reading classical Latin. Emphasizes basic vocabulary and grammar. Explores aspects of Latin literature and Roman culture. Provides a foundation for the study of ancient Rome. Develops a practical understanding of English.
Prerequisites: FLLT 111.
Terms Typically Offered: Spring.

FLLT 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

Foreign Language-Mandarin Chinese (FLAM)

Courses

FLAM 111 First-Year Mandarin Chinese I 3 Credits
Introduction to Mandarin Chinese. Basic competency in understanding, speaking, reading, and writing Mandarin Chinese.
Terms Typically Offered: Fall.

FLAM 112 First-Year Mandarin Chinese II 3 Credits
Continued work on basic competency in Mandarin Chinese. Increasing familiarity with Chinese culture.
Prerequisites: FLAM 111.
Terms Typically Offered: Spring.

Foreign Language-Other (FLAV)

Courses

FLAV 196 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

FLAV 295 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

FLAV 296 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

FLAV 390 Special Studies in Foreign Languages 1-3 Credits
These courses are currently offered through Outreach: Ancient Greek, Latin, Advanced French, German, Spanish and other Classical and Modern Languages as permitted by interest and instructor availability.

FLAV 390G French Intermediate I 3 Credits

FLAV 390H French Intermediate II 3 Credits

FLAV 390S Russian Intermediate I 3 Credits

FLAV 390T Russian Intermediate II 3 Credits

FLAV 390U French Advanced 3 Credits

FLAV 390V German Advanced 3 Credits

FLAV 390W Spanish Advanced 3 Credits

FLAV 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

FLAV 396 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

FLAV 495 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

FLAV 496 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Foreign Language-Russian (FLAR)

Courses

FLAR 111 First-Year Russian I 3 Credits
Introduction to Russian. Basic competency in understanding, speaking, reading, and writing Russian.
Terms Typically Offered: Fall.

FLAR 112 First-Year Russian II 3 Credits
Continued work on basic competency in Russian. Increasing familiarity with Russian culture.
Prerequisites: FLAR 111.
Terms Typically Offered: Spring.

Foreign Language-Spanish (FLAS)

Courses

FLAS 111 First-Year Spanish I 3 Credits
Basic Spanish language skills. Introduction to greetings, classroom, and family vocabularies in the present and present progressive tenses. Hispanic cultural and social interactions.
Terms Typically Offered: Fall, Spring, Summer.

FLAS 112 First-Year Spanish II 3 Credits
Continuation of basic Spanish language skills. Introduction of specialized vocabularies and past tenses (preterit vs. imperfect). Continuation of Hispanic cultural and social interactions.
Prerequisites: FLAS 111.
Terms Typically Offered: Fall, Spring, Summer.

FLAS 211 Second-Year Spanish I 3 Credits
Continuation of basic Spanish language skills. Introduces subjunctive mood, future and conditionals, and other language constructions.
Prerequisites: FLAS 112.
Essential Learning Categories: Humanities
Terms Typically Offered: Fall, Spring.

FLAS 212 Second-Year Spanish II 3 Credits
Review of Spanish grammar. Practice in writing, speaking, listening comprehension, and reading.
Prerequisites: FLAS 211.
Terms Typically Offered: Spring.

FLAS 213 Spanish Conversation and Grammar 3 Credits
Conversational practice in Spanish over a wide range of topics, with focus on conversational skills at the intermediate level. Review of Spanish grammar.
Prerequisites: FLAS 211.
Essential Learning Categories: Humanities
Terms Typically Offered: Fall, Spring.

FLAS 290 Special Studies in Spanish 1-3 Credits

FLAS 295 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

FLAS 296 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

FLAS 300 Spanish Composition and Grammar 3 Credits
Writing practice in Spanish over a wide range of topics, including written accents and other spelling conventions, with focus on writing skills at the intermediate level. Review of Spanish grammar.
Prerequisites: FLAS 213 (can be taken concurrently).
Terms Typically Offered: Fall, Spring.

FLAS 301 Advanced Spanish Grammar 3 Credits
Level of instruction that assumes a previous formal contact with Spanish. It is not only devoted to increase awareness of grammatical accuracy but also develops the form and structure of language, always oriented towards a practical use of Spanish.
Prerequisites: FLAS 212 or permission of instructor.

FLAS 302 Advanced Spanish Composition 3 Credits
Writing of well-structured and clearly-planned compositions of varying lengths and styles. Provides the opportunity for students to do research and prepares them for the writing of regular term papers in Spanish.
Prerequisites: FLAS 300.
Terms Typically Offered: Fall, Spring.

FLAS 303 Advanced Spanish Conversation 3 Credits
Conversational practice in Spanish over a wide range of topics. Strategies in organization of oral discourse and improvisation with special attention to advanced expression, grammaticality, and specific characteristics of spoken language.
Prerequisites: FLAS 302.
Terms Typically Offered: Fall, Spring.

FLAS 304 Advanced Oral Production and Composition 3 Credits
Introduction to writing well-structured and clearly planned compositions of varying lengths and styles. Preparation, organization, and delivery of a speech in Spanish. Provides the opportunity for students to conduct research and prepares them for the writing of term papers and oral presentations in Spanish. Special attention given to advanced expression and grammar.
Prerequisites: FLAS 300.
Terms Typically Offered: Fall, Spring.

FLAS 305 Advanced Spanish Grammar and Spanish English Contrasts 3 Credits
Development of grammatical awareness and accuracy, with orientation towards a practical use of Spanish. Includes comparison and contrast of English and Spanish grammar.
Prerequisites: FLAS 300.
Terms Typically Offered: Fall, Spring.

FLAS 311 History and Culture of Spain 3 Credits
Introduction to Spanish culture and history, including the physical characteristics of the Iberian Peninsula, the earliest Pre-Roman inhabitants, the Roman conquest to the Germanic invasions, the Islamic empire, the Christian "Reconquest", the Spanish empire, its decline and end, the industrial revolution, the modernization, the II Republic, Civil War, Franco's dictatorship, and Spain's conversion into the democratic monarchy of today.
Prerequisites: FLAS 304 or FLAS 305.
Terms Typically Offered: Fall, Spring.

FLAS 312 History and Culture of Latin America 3 Credits
Exploration of Latin American culture, including origins of pre-Columbian cultures of Meso-America, the Caribbean, and South-America; Spanish invasion and colonial culture; new racial and ethnic groups; independence and new republics; neo-colonialism in the western hemisphere; post-Cuban Revolutionary influence; influence of U.S. during the "cold war"; economic and commercial interdependence; immigration of Latinos to the U.S.; and current events.
Prerequisites: FLAS 304 or FLAS 305.
Terms Typically Offered: Fall, Spring.

FLAS 321 Introduction to the Literature of Spain 3 Credits
Introduction to the literature of Spain, from the Middle Ages through the twenty-first century. Includes excerpts from major works in poetry, narrative, and theater.
Prerequisites: FLAS 300, FLAS 302, and FLAS 303.
Terms Typically Offered: Fall, Spring.

FLAS 322 Introduction to the Literature of Latin America 3 Credits
Introduction to the literature of Latin America, from Columbus through the twenty-first century. Includes indigenous traditions and excerpts from major works in poetry, narrative, and theater.
Prerequisites: FLAS 300, FLAS 302, and FLAS 303.
Terms Typically Offered: Fall, Spring.

FLAS 323 Introduction to Hispanic Literature I 3 Credits
Exploration of Peninsular and Latin-American literature, from their earliest manifestations through the 18th century. Introduction to literary analysis and criticism.
Prerequisites: FLAS 304 or FLAS 305.
Terms Typically Offered: Fall, Spring.

FLAS 324 Introduction to Hispanic Literature II 3 Credits
Exploration of Peninsular and Latin-American literature, from early 19th century works through contemporary literature. Introduction to literary analysis and criticism.
Prerequisites: FLAS 304 or FLAS 305.
Terms Typically Offered: Fall, Spring.

FLAS 334 Introduction to Translation and Interpreting 3 Credits
Introduction to the professions, methodologies, and practice of translation and interpreting, combining theoretical explanations with practical implementation.
Prerequisites: FLAS 305 or FLAS 341.
Terms Typically Offered: Fall.

FLAS 334L Translation and Interpreting Laboratory 1 Credit
Practical implementation of professional ethics, methodologies, and practice of translation and interpreting.
Prerequisites: FLAS 438 or FLAS 439 (may be taken concurrently).
Terms Typically Offered: Fall, Spring.
Course may be taken 4 times for credit.

FLAS 341 Introduction to Hispanic Linguistics 3 Credits
Introduction to human language, with Spanish as the primary source for description and analysis. Explores phonology, word formation, language acquisition, and the intersection between language and society. Students will be equipped with the skills necessary to apply linguistic concepts to actual Spanish language data.
Prerequisites: FLAS 305.
Terms Typically Offered: Fall, Spring.

FLAS 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

FLAS 396 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

FLAS 421 Hispanic Poetry 3 Credits
Exploration of peninsular and/or Latin-American poetry, poets, and poetic forms. May include poetry written by Hispanic authors in the United States.
Prerequisites: FLAS 301, FLAS 302, and FLAS 303.

FLAS 422 Hispanic Prose 3 Credits
Exploration of peninsular and/or Latin-American prose, including the novel, short story, and/or essay. May include prose written by Hispanic authors in the United States.
Prerequisites: FLAS 300, FLAS 302, FLAS 303, and FLAS 341.
Terms Typically Offered: Fall, Spring.

FLAS 423 Hispanic Drama and Film 3 Credits
Exploration of dramatic texts and/or cinema from throughout the Spanish speaking world. May include plays and films by Hispanic authors in the United States.
Prerequisites: FLAS 300, FLAS 302, FLAS 303, and FLAS 341.
Terms Typically Offered: Spring.

FLAS 424 Advanced Hispanic Literature 3 Credits
Exploration of important Hispanic literary movements through a more in-depth study of genres, including prose, poetry, film, and drama. Specific topics vary by semester.
Prerequisites: FLAS 323 or FLAS 324.
Terms Typically Offered: Fall, Spring.

FLAS 431 Spanish for Medical and Social Services 3 Credits
Acquisition and refinement of superior linguistic and cross-cultural Spanish/English skills used in health care and social services.
Prerequisites: One of the following: FLAS 311, FLAS 312, FLAS 323, FLAS 324, or FLAS 341.
Terms Typically Offered: Fall, Spring.

FLAS 433 Spanish for the Professions 3 Credits
Exploration of linguistic and cultural aspects of professional practices in a Hispanic context. Developing skills necessary for professional communication.
Prerequisites: Must complete one of the following: FLAS 341, FLAS 323, FLAS 324, FLAS 311, or FLAS 312.
Terms Typically Offered: Fall, Spring.

FLAS 434 Introduction to Translation 3 Credits
Fundamentals of translation. Insights and practice in translation. Focus is on the Spanish-English language pair.
Prerequisites: FLAS 323 or FLAS 324 or FLAS 311 or FLAS 312 or FLAS 341.

FLAS 435 Introduction to Interpreting 3 Credits
Fundamentals of interpreting. Enhancement of linguistic and cross-cultural skills dealing with Spanish-English interpreting.
Prerequisites: FLAS 311 or FLAS 312 or FLAS 323 or FLAS 324 or FLAS 341.

FLAS 438 Methods and Specialized Practices in Translation 3 Credits
Development of methods for translation across the different specialized practices, including but not limited to: literary, scientific, legal, and medical translation. Focus is on the Spanish-English language pair.
Prerequisites: FLAS 334 and one of the following: FLAS 311, FLAS 312, FLAS 323, FLAS 324, or FLAS 341.
Terms Typically Offered: Fall, Spring.

FLAS 439 Methods and Specialized Practices in Interpreting 3 Credits
Development of methods for interpreting across the different specialized practices, including but not limited to: legal, medical, and community interpreting. Focus is on the Spanish-English language pair.
Prerequisites: FLAS 334 and one of the following: FLAS 311, FLAS 312, FLAS 323, FLAS 324, or FLAS 341.
Terms Typically Offered: Fall, Spring.

FLAS 441 Applied Phonetics and Phonology 3 Credits
Theory and practice of Spanish phonetics and phonology. Focused on dealing with pronunciation issues and recognition of variation in the Hispanic world. Includes recognition of speaker origin, as well as Spanish and English in contrast.
Prerequisites: FLAS 341.
Terms Typically Offered: Fall, Spring.

FLAS 442 Methodology of Teaching Foreign Languages 3 Credits
Examination of current trends, methods, and techniques in foreign language pedagogy.
Prerequisites: FLAS 300, FLAS 302, FLAS 303, FLAS 341, and FLAS 441.
Terms Typically Offered: Fall, Spring.

FLAS 444 Using Technology, Literature and Culture in the Spanish Language Classroom 3 Credits
Examination of current trends and techniques in the use of literature, technology, and culture for teaching Spanish.
Prerequisites: FLAS 311, FLAS 312, FLAS 321, FLAS 322, and FLAS 341.
Terms Typically Offered: Fall, Spring.

FLAS 446 Spanish Language Variation 3 Credits
Exploration of variation and change in the Spanish-speaking world. A special look at language contact phenomena, with particular focus on Spanish/English contact situations.
Prerequisites: One of the following: FLAS 305, FLAS 311, FLAS 312, FLAS 323, FLAS 324, FLAS 341, or FLAS 441.
Terms Typically Offered: Fall, Spring.

FLAS 495 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

FLAS 496 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

FLAS 498 Spanish Senior Practicum 3 Credits
Faculty-coordinated internship consisting of work-oriented instruction in Spanish involving classroom or laboratory experiences and/or research.
Prerequisites: Completion of six credit hours of FLAS at the 400-level.

FLAS 499 Internship 1-12 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Forensic Anthropology (FOAN)

Courses

FOAN 475 Human Remains Detection and Recovery for Medico-Legal Investigations 3 Credits
Archaeological techniques applied to detection and recovery of recent human remains. Includes practical experience of approximately 6 hours on an announced date.
Prerequisites: BIOL 410, or experience in law enforcement or a coroner's office and permission of instructor.

Geographic Information Systems Technology (GIST)

Courses

GIST 305 Cartography for GIS 1 Credit
Introduction to maps as tools for communication and analysis of locationally-related information.

GIST 321 Introduction to Remote Sensing 2 Credits
Fundamentals of remotely sensed data, with emphasis on processing and interpretation of Landsat satellite imagery. Two one-hour lectures and one two-hour laboratory per week.
Prerequisites: GIST 332/GIST 332L.
Corequisites: GIST 321L.

GIST 321L Introduction to Remote Sensing Laboratory 1 Credit
Lab component required for GIST 321.
Prerequisites: GIST 332/GIST 332L.
Corequisites: GIST 321.
Fees: Yes.

GIST 332 Introduction to Geographic Information Systems 2 Credits
Fundamentals of GIS and digital mapping, including basic GIS skills and an introduction to geospatial databases and analyses. Two one-hour lectures and one two-hour laboratory per week.
Prerequisites: GIST 305 or GEOG 131.
Corequisites: GIST 332L.

GIST 332L Introduction to Geographic Information Systems Laboratory 1 Credit
Lab component required for GIST 332.
Prerequisites: GIST 305 or GEOG 131.
Corequisites: GIST 332.
Fees: Yes.

GIST 375 Global Positioning Systems for GIS 2 Credits
GPS techniques and applications as they relate to GIS data collection.
Prerequisites: GIST 332/GIST 332L.
Corequisites: GIST 375L.

GIST 375L Global Positioning Systems for GIS Laboratory 1 Credit
Lab component required for GIST 375.
Prerequisites: GIST 332/GIST 332L.
Corequisites: GIST 375.
Fees: Yes.

GIST 396 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

GIST 396L Topics Lab: 1-2 Credits
Course may be taken 10 times for credit.

GIST 422 GIS Data Management and Editing 2 Credits
Further exploration of GIS, involving creating, editing, and managing geospatial data and working with different types of GIS software. Two one-hour lectures and one two-hour laboratory per week.
Prerequisites: GIST 332/GIST 332L.
Corequisites: GIST 422L.

GIST 422L GIS Data Management and Editing Laboratory 1 Credit
Lab component required for GIST 422.
Prerequisites: GIST 332/GIST 332L.
Corequisites: GIST 422.

GIST 432 Spatial Analysis and Modeling in GIS 2 Credits
Exploration of GIS techniques and analysis with emphasis on raster-based GIS technology, processing, and geospatial analysis. Two one-hour lectures and one two-hour laboratory per week.
Prerequisites: GIST 332/GIST 332L.
Corequisites: GIST 432L.

GIST 432L Spatial Analysis and Modeling in GIS Laboratory 1 Credit
Lab component required for GIST 432.
Prerequisites: GIST 332/GIST 332L.
Corequisites: GIST 432.

Geography (GEOG)

Courses

GEOG 102 Human Geography-GTSS2 3 Credits
Introduction to spatial dimensions of the human world. Demography, human settlements and land use, political and economic systems, ethnicity, religion, and language examined from a spatial perspective.
Essential Learning Categories: Social and Behavioral Sciences
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring, Summer.

GEOG 103 World Regional Geography-GTSS2 3 Credits
Survey of world geography by major world regions, including an analysis of the physical elements, the inhabitants, and human occupancy patterns and an evaluation of the potential of each region for sustaining human populations.
Essential Learning Categories: Social and Behavioral Sciences
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring, Summer.

GEOG 131 Introduction to Cartography 3 Credits
Introduction to maps as tools for communication and analysis of locationally related information, including an introduction to concepts in Geographic Information Systems (GIS) and Global Positioning Systems (GPS).
Prerequisites: MATH 107 or higher.
Terms Typically Offered: Fall, Spring.

GEOG 196 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

GEOG 296 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

GEOG 326 Colorado Archaeology: A Geographical Perspective 3 Credits
Survey of Colorado prehistory using a geographic perspective, including adjacent portions of the Great Plains, Intermountain West, and Great Basin. The focus is on regional sequences in their environment settings and major research questions from the Paleoindian to Protohistoric and Historic Euroamerican periods.
Prerequisites: ANTH 202 or ANTH 220.
Equivalent Course(s): ANTH 326
Terms Typically Offered: Spring.

GEOG 341 GIS for Social Scientists 2 Credits
Applications of GIS for social science analyses, including: use of open-source data (such as US Census data), collecting new data, creating and converting data to GIS formats, and the practical use of physical and/or environmental GIS data in social science applications.
Prerequisites: GEOG 131 and GIST 332/GIST 332L.
Corequisites: GEOG 341L.
Terms Typically Offered: Fall.

GEOG 341L GIS for Social Scientists Lab 1 Credit
Applications of GIS for social science analyses, including: use of open-source data (such as US Census data), collecting new data, creating and converting data to GIS formats, and the practical use of physical and/or environmental GIS data in social science applications.
Prerequisites: GEOG 131 and GIST 332/GIST 332L.
Corequisites: GEOG 341.
Terms Typically Offered: Fall.

GEOG 354 Political Geography 3 Credits
Exploration of ways in which physical landscapes shape political attitudes, ideas, and institutions. Emphasis on key concepts of place, mapping, borders, territory, nationalism, and ecological and social impact of natural settings.
Equivalent Course(s): POLS 354
Terms Typically Offered: Fall.

GEOG 396 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

GEOG 399 Internship 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

GEOG 496 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

GEOG 496L Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

GEOG 499 Internship 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Geology (GEOL)

Courses

GEOL 100 Survey of Earth Science-GTSC2 3 Credits
Physical makeup of the earth, its history, and geology. Intended for students not majoring in science.
Essential Learning Categories: Natural Sciences
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.
Fees: Yes.

GEOL 103 Weather and Climate-GTSC2 3 Credits
Non-mathematical introduction to elements of local and global weather: the atmosphere, cloud formation, precipitation, seasons, optical phenomena, and violent storms. Includes the development of weather forecasts.
Essential Learning Categories: Natural Sciences
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

GEOL 104 Oceanography-GTSC2 3 Credits
Non-mathematical introduction to the scientific study of the ocean. While the course focuses on the hydrosphere subsystem of the Earth System, the atmosphere, cryosphere, lithosphere, and biosphere interrelationships with the hydrosphere are also examined.
Essential Learning Categories: Natural Sciences
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

GEOL 105 Geology of Colorado-GTSC2 3 Credits
Introduction to minerals, rocks, geologic time scale, and basic geologic terms, followed by geology of Colorado. Development of skills in geological observation, critical thinking, and natural resources in Colorado.
Essential Learning Categories: Natural Sciences
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.
Fees: Yes.

GEOL 106 Introduction to Dinosaurs-GTSC2 3 Credits
Introduction to the study of dinosaurs, from geological, biological, and historical perspectives. Intended for students interested in how different areas of science can be applied to a subject of strong human interest.
Essential Learning Categories: Natural Sciences
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.
Fees: Yes.

GEOL 107 Natural Hazards and Environmental Geology-GTSC2 3 Credits
Introduction to geologic aspects of our environment. Includes studies of natural hazards, global climate change, geologic resources and emphasizes human interactions with the environment.
Essential Learning Categories: Natural Sciences
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum

GEOL 108 Water, People, and Environment-GTSC2 3 Credits
Introduction to the essential nature of water on Earth. Comprehensive foundation in the water cycle, human use of water, politics of water, and critical issues surrounding water as a resource. Overview of global water issues, with focus on the American West, including sources and uses of water, water conservation, and the legal, political, economic, and physical infrastructure of water control.
Essential Learning Categories: Natural Sciences
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

GEOL 109 Geologic Wonders of Our National Parks 3 Credits
Introduction to basic geologic principles and their applications to the natural history of the major national parks in the United States, with a focus on the national parks and monuments of the Colorado Plateau region.
Essential Learning Categories: Natural Sciences
Terms Typically Offered: Fall.

GEOL 111 Principles of Physical Geology-GTSC1 3 Credits
Materials that make up Earth and the dynamics that shape it, including volcanoes, earthquakes, mountain building, water, wind, and landslides. Hands-on laboratory explores minerals, rocks, maps, earthquakes, water resources, glaciers, and landforms.
Corequisites: GEOL 111L.
Essential Learning Categories: Natural Science with lab - Both the lab and lecture must be completed
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

GEOL 111L Principles of Physical Geology Laboratory-GTSC1 1 Credit
Materials that make up Earth and the dynamics that shape it, including volcanoes, earthquakes, mountain building, water, wind, and landslides. Hands-on laboratory explores minerals, rocks, maps, earthquakes, water resources, glaciers, and landforms.
Corequisites: GEOL 111.
Essential Learning Categories: Natural Science with lab - Both the lab and lecture must be completed
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.
Fees: Yes.

GEOL 112 Principles of Historical Geology-GTSC1 3 Credits
Origin of the Earth and life, changes recorded in rocks and fossils using the geologic time scale, and techniques of dating to place events in a sequence. Laboratory explores topographic and geologic maps, hand samples of rocks, reconstruction exercises, and fossils to interpret regional and general geologic history.
Prerequisites: GEOL 111/GEOL 111L or GEOL 113/GEOL 113L.
Corequisites: GEOL 112L.
Essential Learning Categories: Natural Science with lab - Both the lab and lecture must be completed
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

GEOL 112L Principles of Historical Geology Laboratory-GTSC1 1 Credit
Origin of the Earth and life, changes recorded in rocks and fossils using the geologic time scale, and techniques of dating to place events in a sequence. Laboratory explores topographic and geologic maps, hand samples of rocks, reconstruction exercises, and fossils to interpret regional and general geologic history.
Prerequisites: GEOL 111/GEOL 111L or GEOL 113/GEOL 113L.
Corequisites: GEOL 112.
Essential Learning Categories: Natural Science with lab - Both the lab and lecture must be completed
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.
Fees: Yes.

GEOL 113 Field-Based Introduction to Physical Geology-GTSC1 3 Credits
Exploration of Earth's rocks and minerals and the dynamic processes (e.g., volcanoes, earthquakes, glaciers, water, wind) that shape them through hands-on outdoor learning. Development of skills for active, outdoor, field-based mapping of local geological features. Lecture and lab must be taken with the same instructor.
Corequisites: GEOL 113L.
Essential Learning Categories: Natural Science with lab - Both the lab and lecture must be completed
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

GEOL 113L Field-Based Introduction to Physical Geology Laboratory-GTSC1 1 Credit
Exploration of Earth's rocks and minerals and the dynamic processes (e.g., volcanoes, earthquakes, glaciers, water, wind) that shape them through hands-on outdoor learning. Development of skills for active, outdoor, field-based mapping of local geological features. Lecture and lab must be taken with the same instructor.
Corequisites: GEOL 113.
Essential Learning Categories: Natural Science with lab - Both the lab and lecture must be completed
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.
Fees: Yes.

GEOL 196 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

GEOL 202 Introduction to Field Studies 3 Credits
Mapping of several small areas using GPS, aerial photographs, and pace and compass methods. Profiles, cross-sections, and maps are prepared. Some unscheduled time is required to do mapping projects.
Prerequisites: GEOL 111/GEOL 111L or GEOL 113/GEOL 113L; and GEOL 112/GEOL 112L (may be taken concurrently).
Fees: Yes.

GEOL 204 Computer Applications in Geology 3 Credits
Quantitative methods of geologic data analysis with the data manipulated on the computer. Methodical approach with limited theoretical emphasis; statistical concepts; special programs for graphical presentation and analysis. Three lectures per week and computer laboratory time to complete exercises are required.
Prerequisites: GEOL 111/GEOL 111L or GEOL 113/GEOL 113L, and GEOL 112/GEOL 112L, and STAT 200 (recommended but not required) or permission of instructor.
Fees: Yes.

GEOL 250 Environmental Geology 3 Credits
Geologic aspects of environmental problems involving natural processes and anthropogenic activities. Studies include landslides, earthquakes, flooding, coastal erosion, and land subsidence as well as environmental impacts of mineral resource extraction, soil erosion, fossil fuel consumption, and climate change.
Prerequisites: GEOL 100 or GEOL 104 or GEOL 105 or GEOL 111 or GEOL 113.
Fees: Yes.

GEOL 296 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

GEOL 301 Structural Geology 3 Credits
Stress and strain in rock bodies. Description and occurrence of both brittle and ductile rock structures. Laboratory: stereographic and graphical solution of structural problems, the study of maps and cross sections, and some field problems. Three lectures and one two-hour laboratory per week. Four one-day field trips are taken.
Prerequisites: GEOL 202, GEOL 204, and MATH 130.
Corequisites: GEOL 301L.

GEOL 301L Structural Geology Laboratory 1 Credit
Lab component required for GEOL 301.
Prerequisites: GEOL 202, GEOL 204, and MATH 130.
Corequisites: GEOL 301.
Fees: Yes.

GEOL 325 Introduction to Engineering Geology 3 Credits
Geologic principles applied to construction problems; case histories of major projects. Field trips and term project required.
Prerequisites: GEOL 111/GEOL 111L or GEOL 113/GEOL 113L or permission of instructor.
Fees: Yes.

GEOL 331 Crystallography and Mineralogy 3 Credits
Morphology and classification of crystals; chemistry and genesis of minerals. Laboratory: identification of crystal systems and class, hand specimen identification of minerals, some X-ray diffraction work. Three lectures and one two-hour laboratory per week.
Prerequisites: GEOL 202, GEOL 204, and CHEM 131 or permission of instructor.
Corequisites: GEOL 331L.

GEOL 331L Crystallography and Mineralogy Laboratory 1 Credit
Lab component required for GEOL 331.
Prerequisites: GEOL 202, GEOL 204, and CHEM 131 or permission of instructor.
Corequisites: GEOL 331.
Fees: Yes.

GEOL 333 Geology of the Canyon Country 1 Credit
Three two-hour evening lectures with films and slides used to preview geology of the Colorado Plateau. A five-day field trip to the selected sites is conducted during spring break.
Prerequisites: GEOL 100, GEOL 105 or GEOL 112.
Fees: Yes.

GEOL 340 Igneous and Metamorphic Petrology 3 Credits
Origin, composition and classification of igneous and metamorphic rocks. Laboratory: identification of igneous and metamorphic rocks in hand specimens. Three lectures and one two-hour laboratory per week.
Prerequisites: GEOL 331.
Corequisites: GEOL 340L.

GEOL 340L Igneous and Metamorphic Petrology Laboratory 1 Credit
Lab component required for GEOL 340.
Prerequisites: GEOL 331.
Corequisites: GEOL 340.
Fees: Yes.

GEOL 351 Applied Geochemistry 3 Credits
Geochemistry and its relationship to weathering and soils, geochemical surveys and prospecting techniques, reactions of contaminants with earth materials, and methods of reducing environmental degradation.
Prerequisites: CHEM 121/CHEM 121L or CHEM 131/131L; and GEOL 111/GEOL 111L or GEOL 113/GEOL 113L.
Terms Typically Offered: Spring.

GEOL 355 Basic Hydrology 3 Credits
Introduction to physical hydrologic processes including precipitation, evapotranspiration, infiltration, runoff and subsurface flow. Examination of hydrologic modeling, problem solving, and monitoring techniques as well as water resource management issues at both local and global scales.
Prerequisites: MATH 113, or MATH 151 or permission of instructor.

GEOL 359 Survey of Energy-Related Natural Resources 3 Credits
Origin, location, and economics of non-metallic geologic commodities, including phosphates, evaporites, oil, gas, coal, and sedimentary uranium deposits. Students give oral and written reports on two localities.
Prerequisites: GEOL 111/GEOL 111L or GEOL 113/GEOL 113L; CHEM 131/CHEM 131L, or permission of instructor.

GEOL 361 Survey of Mineral-Related Natural Resources 3 Credits
The genesis, description, and exploitation of metallic and non-metallic natural resources consumed by modern society, such as base-metals, precious metals and gems, aggregates and construction materials, fertilizers, and chemical-industrial commodities. Environmental, economic, and socio-political issues associated with utilization of these resources will also be addressed. At least one field trip to a local resource area will be arranged. Three lectures per week.
Prerequisites: GEOL 111/GEOL 111L or GEOL 113/GEOL 113L, and CHEM 131/CHEM 131L, or permission of instructor.

GEOL 370 Renewable Energy 3 Credits
Introduction to renewable energy resources from a technical perspective with an emphasis on sustainability. Includes concepts of energy and power, units of measure, sources and forms of energy, uses of energy, energy efficiency, electricity, solar thermal and photovoltaics, bioenergy, hydropower, tidal power, wave power, wind power, geothermal, hydrogen, efficient building design, and integration of renewables with current energy supplies.
Prerequisites: MATH 113 or higher.
Equivalent Course(s): ENVS 370
Terms Typically Offered: Fall.

GEOL 393 Co-operative Education 3-12 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

GEOL 394 Natural Resources of the West 1 Credit
Seminars covering topics related to natural resources including water, soil, land, mineral and energy resources in the western United States. Guest speakers are invited from the academic community, industry or government agencies to give formal oral presentations followed by informal discussion with students and faculty.
Equivalent Course(s): ENVS 394
Course may be taken multiple times up to maximum of 4 credit hours.

GEOL 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

GEOL 396 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.
Fees: Yes.

GEOL 402 Applications of Geomorphology 3 Credits
Knowledge of landform genesis and shaping processes is applied to solve modern problems with emphasis on local soils, slopes, rivers, erosional surfaces, and structural framework. Laboratory and field studies used to explore frost, running water, slope movement, ground water, wind, and glaciers which have affected the local environment. Practical techniques of measurement and interpretation, including statistical and computer techniques, used to produce models of landscape development. A term project must be completed. Two major field trips are required. Four lectures and one two-hour laboratory per week.
Prerequisites: GEOL 202 and GEOL 204 and permission of instructor.
Corequisites: GEOL 402L.

GEOL 402L Applications of Geomorphology Laboratory 1 Credit
Lab component required for GEOL 402.
Prerequisites: GEOL 202 and GEOL 204 and permission of instructor.
Corequisites: GEOL 402.
Fees: Yes.

GEOL 404 Geophysics 3 Credits
Exploration for mineral and petroleum and preliminary investigation of sites for engineering and environmental projects with emphasis on refraction and reflection seismic, gravity, magnetic, electrical, electromagnetic ground-penetrating radar, and radioactive methods.
Prerequisites: GEOL 202; GEOL 204; GEOL 112/GEOL 112L; and either PHYS 111/PHYS 111L or PHYS 131/PHYS 131L; PHYS 112/PHYS 112L and MATH 151 are recommended but not required.
Corequisites: GEOL 404L.
Terms Typically Offered: Spring.

GEOL 404L Geophysics Laboratory 1 Credit
Exploration for mineral and petroleum and preliminary investigation of sites for engineering and environmental projects with emphasis on refraction and reflection seismic, gravity, magnetic, electrical, electromagnetic ground-penetrating radar and radioactive methods.
Prerequisites: GEOL 202; GEOL 204; GEOL 112/GEOL 112L; and either PHYS 111/PHYS 111L or PHYS 131/PHYS 131L; PHYS 112/PHYS 112L and MATH 151 are recommended but not required.
Corequisites: GEOL 404.
Terms Typically Offered: Spring.
Fees: Yes.

GEOL 405 Solid Earth Geophysics 3 Credits
Classical physics applied to the study of the earth with emphasis on the origin of the earth, its gravitational, geomagnetic, and geothermal characteristics, seismicity, the dynamics of the earth's crust, plate tectonics, and continental drift. One field trip required.
Prerequisites: GEOL 404 or permission of instructor.

GEOL 411 Paleontology 3 Credits
Taxonomy, morphology, ecology, and geologic range of most groups of invertebrate fossils. Laboratory: field identifications of guide fossils. A one-day field trip is required. Two lectures and one two-hour laboratory per week.
Prerequisites: Beginning Biology course or permission of instructor.
Corequisites: GEOL 411L.

GEOL 411L Paleontology Laboratory 1 Credit
Lab component required for GEOL 411.
Prerequisites: Beginning Biology course or permission of instructor.
Corequisites: GEOL 411.
Fees: Yes.

GEOL 414 Hydrology and River Dynamics 3 Credits
Exploration and analysis of the hydrologic cycle and river forms and processes in the context of watershed science.
Prerequisites: MATH 113 or MATH 151.
Corequisites: GEOL 414L.
Terms Typically Offered: Fall, Spring.

GEOL 414L Hydrology and River Dynamics Laboratory 1 Credit
Exploration and analysis of the hydrologic cycle and river forms and processes in the context of watershed science. Lab component required for GEOL 414.
Prerequisites: MATH 113 or MATH 151.
Corequisites: GEOL 414.
Terms Typically Offered: Fall, Spring.

GEOL 415 Introduction to Ground Water 3 Credits
Relationships of ground water to other water sources, hydrologic cycle, water balance, hydrologic characteristics of rocks, hydraulics and equations defining flow, ground water quality, and contamination, exploration and measurement techniques (including geophysical procedures), state and federal regulations, and computer modeling. Laboratory: Acquisition, analysis, and interpretation of ground water data. Three lectures and one two hour laboratory per week.
Prerequisites: GEOL 111/GEOL 111L or GEOL 113/GEOL 113L, and MATH 151, and at least high school level biology, chemistry and physics.
Corequisites: GEOL 415L.

GEOL 415L Introduction to Ground Water Laboratory 1 Credit
Lab component required for GEOL 415. Three lectures and one two-hour laboratory per week.
Prerequisites: GEOL 111/GEOL 111L or GEOL 113/GEOL 113L, and MATH 151, and at least high school level biology, chemistry and physics.
Corequisites: GEOL 415.
Fees: Yes.

GEOL 443 Field-Based Depositional Systems 3 Credits
Analysis of depositional systems with a strong field component. Lectures followed by weekly field trips will show students local examples of all common depositional systems.
Prerequisites: GEOL 202.
Corequisites: GEOL 443L.

GEOL 443L Field-Based Depositional Systems Laboratory 1 Credit
Lab component required for GEOL 443.
Prerequisites: GEOL 202.
Corequisites: GEOL 443.
Fees: Yes.

GEOL 444 Sedimentology and Stratigraphy 3 Credits
Physical, chemical, and biological characteristics of sedimentary rocks, with emphasis on depositional processes and environments, diagenesis, stratigraphic sequences, and correlation. Laboratory emphasis is on description and classification of sedimentary rocks, analysis of depositional environments, and stratigraphic problems. One weekend field trip is required.
Prerequisites: GEOL 202, GEOL 204, GEOL 331/GEOL 331L, and CHEM 131/CHEM 131L.
Corequisites: GEOL 444L.

GEOL 444L Sedimentology and Stratigraphy Laboratory 1 Credit
Lab component required for GEOL 444.
Prerequisites: GEOL 202, GEOL 204, GEOL 331/GEOL 331L, and CHEM 131/CHEM 131L.
Corequisites: GEOL 444.
Fees: Yes.

GEOL 445 Geospatial Database and Design 2 Credits
Creating, editing, and managing geodatabases and working with topology for implementation with GIS. Term project is required. Two lectures and one two-hour lab per week.
Prerequisites: GIST 432/GIST 432L.

GEOL 455 River Dynamics 3 Credits
Introduction to river forms and processes, including basic open-channel hydraulics, sediment transport, fluvial geomorphology and human interactions with river systems. Lab covers field, lab, and computer techniques to understand and model river forms and processes, including human interactions with river systems.
Prerequisites: GEOL 355 or permission of instructor.
Corequisites: GEOL 455L.

GEOL 455L River Dynamics Laboratory 1 Credit
Lab component required for GEOL 455.
Prerequisites: GEOL 355 or permission of instructor.
Corequisites: GEOL 455.
Fees: Yes.

GEOL 463 Subsurface Methods 3 Credits
Concepts and methods of subsurface data analysis and models applied to sedimentary rocks that commonly form subsurface reservoirs and aquifers. Analysis of multiple geoscience data types (e.g., cores, well logs, seismic, statistical data) to construct 2D and 3D subsurface displays and models to evaluate and interpret geological, geophysical characteristics, and petrophysical properties.
Prerequisites: GEOL 111/GEOL 111L or GEOL 113/GEOL 113L.
Terms Typically Offered: Spring.

GEOL 465 Climate Change Science 3 Credits
Analysis of scientific data and evidence that are the basis of climate change science. Students will review geosystem cycles, processes, timescales, and rates as related to global climate within the atmosphere, biosphere, cryosphere, geosphere, and hydrosphere. Skills associated with leading group discussions and scientific critical thinking will be developed.
Terms Typically Offered: Fall.

GEOL 470 Drone Explorations on Earth 3 Credits
Exploration of drone (sUAS) data for hypothesis testing in the earth sciences. Includes the basics of collecting drone data (rules & regulations, hardware, software), applications of drone data (landscape analysis, archaeology, environmental monitoring, geologic mapping, water resources), and details of data analyses (spatial analysis, visualization).
Terms Typically Offered: Spring.

GEOL 480 Summer Field Camp 6 Credits
This course involves basic training in field geology. Students will perform a variety of geologic mapping exercises using topographic maps and air photos. Students will gain an appreciation of geologic maps - how they are made, the uncertainties and unknowns in mapping, and how mappers deal with them. Most mapping exercises are in deformed sedimentary strata and Quaternary surficial deposits. Some field exercises will involve collection and interpretation of hydrological data. The course is a six full weeks in duration, beginning immediately after conclusion of Spring Semester. Students should not expect to have weekends or holidays off. Students will also be camping out at least half the time or more during this course.
Prerequisites: GEOL 202, GEOL 301/GEOL 301L. GEOL 402/GEOL 402L, and GEOL 444/GEOL 444L are recommended.
Fees: Yes.

GEOL 490 Seminar 3 Credits
Design, implementation, and completion of independent research project including proposal and report writing, and oral presentations. Critiques of geologic literature, data compilation, and periodic oral presentations are also required.
Prerequisites: Upper division standing.

GEOL 493 Co-operative Education 3-12 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

GEOL 495 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

GEOL 496 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

GEOL 496L Topics Lab 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

GEOL 497 Structured Research 1-3 Credits
Geological research under the direct guidance of a faculty member. Designed for junior and senior level students.
Prerequisites: Permission of instructor.
Course may be taken multiple times up to maximum of 9 credit hours.

GEOL 499 Internship 1-4 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Gerontology (GRNT)

Courses

GRNT 110 Introduction to Gerontology 3 Credits
Introduction to the field of gerontology and to the issues of aging and older adults. Students will gain an understanding of the physical, psychological, social, and environmental forces that may influence older individuals.
Terms Typically Offered: Fall, Spring, Summer.

GRNT 125 Community Resources for Older Adults 3 Credits
Introduction to the supports and resources available in the community for older adults. Explores the needs of older persons in the community and evaluates the continuum of long term care available resources, service gaps, program models, and funding mechanisms.
Terms Typically Offered: Fall, Spring, Summer.

GRNT 131 Hospice Care 1 Credit
Introduction to hospice and hospice care, including the hospice philosophy, palliative care, pain and symptom management, death and the dying process, grief and bereavement. Also addresses hospice eligibility, ethics and confidentiality, interdisciplinary team roles, communication, advanced directives, care-giving issues, self-care, and alternative therapies.
Terms Typically Offered: Fall, Spring, Summer.

GRNT 165 Activity Director Training 2 Credits
Preparation to manage an activity department; do assessments and documentation; design, schedule, and implement appropriate activity programs; foster healthy resident and family dynamics; facilitate resident council meetings; manage personnel and resources.
Terms Typically Offered: Fall, Spring, Summer.

GRNT 175 The Aging Mind 3 Credits
Exploration of biological processes and issues related to the aging mind of older adults. The course will focus on normal and pathological changes the brain undergoes as a result of the aging process, and how these changes impact behavior and function. Topics will include neurological mechanisms of memory loss as well as modifiable risk factors.
Terms Typically Offered: Fall, Spring, Summer.

GRNT 176 Cognitive Activity Design 2 Credits
Exploration of the challenges of applying emerging, evidence-based research in memory and aging to address real-life cognitive challenges. Includes design and demonstration of innovative cognitive activities that are supported by recent brain science findings.
Terms Typically Offered: Fall, Spring, Summer.

GRNT 177 Arts and Cognitive Activity Design 1 Credit
Connection between the arts and brain health research to create art-related cognitive activities for older persons. Includes design and demonstration of creative arts as a sustainable cognitive activity for older persons. Explores why creative arts activities have a positive impact on an older person's brain and how their design is supported by recent brain science findings.
Terms Typically Offered: Fall, Spring, Summer.

GRNT 181 Exploring the Field of Aging 2 Credits
Introduction to the range of emerging professional opportunities in the field of aging. Explores and prioritizes potential career pathways. Includes career and labor market research; assessment of passions, interests, experiences and transferable skills; informational interviews, site visits, and networking; career and educational/training goal setting and planning.
Terms Typically Offered: Fall, Spring, Summer.

GRNT 196 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

GRNT 207 Ethics and Aging 3 Credits
Investigation of central ethical issues pertaining to the care of elderly patients. Explores various ethical principles and frameworks and their application to various ethical issues and dilemmas that arise in caring for the elderly. Identifies ethical issues in caring for the elderly and helps develop more proficiency in ethical decision making.
Terms Typically Offered: Fall, Spring, Summer.

GRNT 220 Law and Ethics for Health Professions 2 Credits
Introduction to the study and application medical-legal concepts in medical careers. This course seeks to establish a foundation for ethical behavior and decision making in health professions.
Terms Typically Offered: Fall, Spring.

GRNT 233 Supporting End of Life 3 Credits
Knowledge and skills for health care workers, caregivers, religious and spiritual counselors, social workers, fiduciaries, and family members to support the end of life process with dying persons and their families. Explores the physical, emotional, spiritual, legal, and financial aspects of dying, as well as grief and bereavement.
Terms Typically Offered: Fall, Spring, Summer.

GRNT 234 Hospice Care 1 Credit
Experiential learning in hospice and palliative care settings, with topics including the hospice philosophy, pain and symptom management, death and the dying process, as well as grief support. Also addresses hospice eligibility, ethics and confidentiality, interdisciplinary team roles, communication, advanced directives, care-giving issues, and self-care.
Prerequisites: GRNT 233.
Terms Typically Offered: Fall, Spring, Summer.

GRNT 235 Introduction to Dementia Care 3 Credits
Issues related to the care of older adults presenting behavioral and cognitive challenges, using a person-centered, person-directed approach. Introduces students to assessment, treatment and care of persons experiencing dementia, problematic mental health conditions, and the dying process.
Terms Typically Offered: Fall, Spring, Summer.

GRNT 236 Dementia Care Practices 1 Credit
Approaches to advanced behavioral and cognitive care issues, based on realistic case studies in a variety of settings. Includes assessing appropriate long term care options for memory care, problem solving, functional levels and other challenges, managing surveys, responding to deficiencies, problem solving repetitive incident reports, implementing fall prevention programs, and developing family education and support programs.
Terms Typically Offered: Fall, Spring, Summer.

GRNT 237 End of Life Therapies/Practices 1 Credit
Focus on a specific therapeutic approach appropriate for end of life care and exploration of a variety of strategies and activities designed to augment end of life through reaching palliative care goals and enhancing the quality of life for the dying person and their caregivers.
Terms Typically Offered: Fall, Spring, Summer.

GRNT 240 Care and Service Coordination 3 Credits
Overview of professional standards, responsibilities, and skills required for care managers, information and resource specialists, advocates, and service coordinators working with older adults, persons with disabilities, and their families. Includes the assessment process, care planning, resource management, service provider and financial coordination, documentation and accountability, ethics and confidentiality, advocacy, and evaluation. Introduces strength-based, person-centered, and empowerment models.
Terms Typically Offered: Fall, Spring, Summer.

GRNT 245 Health and Aging 3 Credits
Investigation of the major issues and concepts that deal with the study of the aging process. It will explore the demographic, social, and economic factors in aging as well as the effects of physical change and psychological behavior upon later life.
Terms Typically Offered: Fall, Spring.

GRNT 246 Aging and Mental Health 3 Credits
Examination of mental health as it is impacted by the aging process. An in-depth look at how mental health affects an older adult's quality of life. An interdisciplinary and integrative approach looking at mental illness in the context of neurophysiological processes combined with effects of family systems, environment, personality, and social supports.
Terms Typically Offered: Fall, Spring.

GRNT 247 Applied Legal and Policy Issues in Aging 3 Credits
Introduction to legal and policy issues affecting older adults and their families, as well as care providers. Focuses on how Medicare, Medicaid mental health, veteran's services, and abuse protective services contribute and protect older adults as well as areas where services may be lacking.
Terms Typically Offered: Fall.

GRNT 250 Death: Cross-Cultural Perspectives 3 Credits
Interdisciplinary study of the cross-cultural variations regarding human responses to death and the differing cosmological implications these suggest. Death, a cultural universal, is addressed in its diversity from both anthropological and sociological perspective.
Terms Typically Offered: Fall, Spring, Summer.

GRNT 260 Technology for Aging Services 2 Credits
Role of technology in designing and developing devices and services for the aging population. This course explores ways of improving the quality of life, improving access to care, support for family and caregivers and reducing cost of care through technology.
Terms Typically Offered: Fall, Spring, Summer.

GRNT 270 Neurology of Memory Loss 2 Credits
Introduction to basic human neuroscience, leading to a discussion of brain diseases classified as Dementia.
Terms Typically Offered: Fall, Spring, Summer.

GRNT 280 Management of Senior Living Communities 3 Credits
Overview of senior housing and care, from congregate living to skilled nursing, from historical, philosophical and managerial perspectives. A focus will be on the role of health care delivery within seniors housing, with attention devoted to the determinants of quality care, various models of care, and the critical role of quality management.
Terms Typically Offered: Fall, Spring.

GRNT 294 Gerontology Professional Seminar 1 Credit
Practice reviewing and modifying career and educational/training goals; reassessing the occupational outlook and labor market; building a professional network; formulating mission and vision statements and other branding tools; developing master portfolios and job-specific resumes, websites, brochures, cards, and other job tools; preparing for behavioral job interviews; and creating Degree and Certificate presentations in ePortfolios that assess learning outcomes.
Terms Typically Offered: Fall, Spring, Summer.

GRNT 299 Internship 3 Credits
Development of practical experience, skills and professional direction in achieving their career goals, working under supervision in an approved worksite through an intentional internship.
Terms Typically Offered: Fall, Spring, Summer.
Course may be taken multiple times up to maximum of 6 credit hours.

Health Sciences (HSCI)

Courses

HSCI 101 Introduction to Health Care Professions 3 Credits
Explores the nature of services provided, opportunities within selected fields, and relationships of fields within health sciences. Concepts include: medical terminology, safety and accident prevention, professionalism, legal aspects, safety, communication and math skills, and infection control.

HSCI 196 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

HSCI 295 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

HSCI 401 Health Informatics I - Data Analysis 2 Credits
Reviews statistical analysis, HIPPA, confidentiality, and terminology pertinent to health informatics.
Prerequisites: Permission of instructor.

HSCI 406 Health Informatics II: Project Design & Implementation 2 Credits
Explores application of knowledge and skills to selected health informatics project.
Prerequisites: Permission of instructor.

HSCI 501 Advanced Health Informatics I - Data Analysis 1 Credit
Reviews statistical analysis, HIPPA, confidentiality, and terminology pertinent to health informatics at the graduate level.
Prerequisites: Permission of instructor.

HSCI 506 Advanced Health Informatics II: Project Design and Implementation 2 Credits
Explores application of knowledge and skills to selected health informatics projects at the graduate level.
Prerequisites: Permission of instructor.

Heating, Ventilation, and Air Condition (HVAC)

Courses

HVAC 102 Basic Refrigeration 4 Credits
Introduction to the theory of refrigeration, components, charging, recycling, and evacuation of refrigeration units. On completion of the course, students will be prepared for successful completion of the EPA-608 TYPE 2 certification exam. The student will be responsible to pay a fee to sit for the EPA-608 TYPE 2 exam.
Terms Typically Offered: Fall.
Fees: Yes.

HVAC 103 Basic Electricity 3 Credits
Introduction to the basic electrical AC theory, including the study of Ohm's Law to explain the operation of electrical devices. Overview of motors, electrical controls, and wiring diagrams also discussed.
Terms Typically Offered: Fall.
Fees: Yes.

HVAC 106 Introduction to Service Technician Training 1 Credit
Introduction to basic HVAC service from which the student will build their knowledge and understanding of this great career. Studies include class and school policies, safety for the service tech, first aid, and basic physics as it applies to heat, matter, and energy.
Terms Typically Offered: Fall.
Fees: Yes.

HVAC 110 Fundamentals of Gas Heating 4 Credits
Introduction to the fundamentals of gas heating. Topics include: the basics of gas heating systems, operation of gas valves and burners, gas pipe system design, gas piping system code requirements, and basic code requirements for heating systems.
Terms Typically Offered: Fall.
Fees: Yes.

HVAC 111 Piping Skills for HVAC 4 Credits
Introduction to the different types of tubing and piping materials used in HVAC applications, including, the proper tubing and piping installation methods, proper cutting and bending procedures, pipe math, and piping offsets. Common piping joints will be discussed, including swaging, flaring, soldering, brazing, cutting, and threading of steel pipe and other alternatives. Shop projects include bench projects and mock-up installations.
Terms Typically Offered: Spring.
Fees: Yes.

HVAC 113 Refrigerant Recovery Training 1 Credit
Introduction to the laws regarding refrigerant recovery. The course includes hands-on use of recovery equipment.
Prerequisites: HVAC 102 and an EPA 608 Type I and Type II License.
Terms Typically Offered: Spring.
Fees: Yes.

HVAC 117 OSHA Ten-Hour Voluntary Compliance 1 Credit
Introduction to a 10-Hour OSHA certification course for general industry. Participants will review the current OSHA standards contained in 29 CFR 1910. Participants will have the skills necessary to sit for the certificate of completion from the United States Department of Labor, Occupational Safety and Health Administration.
Terms Typically Offered: Fall.

HVAC 122 Commercial Refrigeration 4 Credits
Introduction to commercial ice makers, walk-in coolers, walk-in freezers, and self-contained refrigeration units.
Prerequisites: HVAC 102.
Terms Typically Offered: Fall.
Fees: Yes.

HVAC 146 Residential Duct Design 2 Credits
Introduction to the importance of equipment sizing. Focus on properly performing heating and cooling load calculations on residential houses. After determining proper equipment sizing, participants will demonstrate how to design the duct-work system sizing for proper airflow throughout the house.
Terms Typically Offered: Fall.
Fees: Yes.

HVAC 195 Independent Study 1-4 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

HVAC 202 Troubleshooting and Customer Service 3 Credits
Introduction to field analysis of malfunctions on actual, in-house, heating, ventilation, refrigeration, and air conditioning equipment. Customer interaction and diagnosis efficiency stressed.
Prerequisites: HVAC 103, HVAC 110, HVAC 117, and HVAC 240.
Terms Typically Offered: Spring.
Fees: Yes.

HVAC 204 Direct Digital Controls 4 Credits
Introduction to the field of direct digital controls in HVAC systems.
Terms Typically Offered: Fall.

HVAC 210 Fundamentals of Hydronic Heating 4 Credits
Introduction to the fundamentals of hydronic heating.
Prerequisites: HVAC 110.
Terms Typically Offered: Spring.

HVAC 222 Heating, Ventilation, Air Conditioning, and Refrigeration Systems Troubleshooting 5 Credits
Introduction to troubleshooting industrial and commercial heating, ventilating, air conditioning, and refrigeration systems.
Prerequisites: HVAC 202.
Terms Typically Offered: Fall.
Fees: Yes.

HVAC 240 Servicing Forced Air Systems 4 Credits
Operation, repair, and maintenance of forced air heating systems. Introduction to the different types of furnaces, code requirements, common controls, and mechanical problems. This course also explores the A.G.A. (American Gas Association) approved method of testing furnace heat exchangers. Customer relations and workplace behavior are discussed.
Terms Typically Offered: Fall.
Fees: Yes.

HVAC 261 Air Conditioning Systems Service and Repair 4 Credits
Introduction to the service and repair of HVAC systems. Troubleshooting techniques and equipment repair will be practiced.
Terms Typically Offered: Spring.
Fees: Yes.

HVAC 295 Independent Study 1-4 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

HVAC 296 Topics 1-4 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

HVAC 299 Internship 1-4 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

History (HIST)

Courses

HIST 101 Western Civilization I-GTHI1 3 Credits
Political, social, economic, and cultural history of western cultures from ancient times through the Reformation.
Essential Learning Categories: History, Humanities
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

HIST 102 Western Civilization II-GTHI1 3 Credits
Political, social, economic, and cultural history of western cultures from Reformation through modern times.
Essential Learning Categories: History, Humanities
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

HIST 131 United States History I-GTHI1 3 Credits
History of the United States from prehistory through the Civil War.
Essential Learning Categories: History, Humanities
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

HIST 132 United States History II-GTHI1 3 Credits
History of the United States from Reconstruction through modern times.
Essential Learning Categories: History, Humanities
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

HIST 202 Introduction to Historical Research 3 Credits
An introduction to the methods and areas of historical research, with the intent of preparing students for research requirements of upper-division history courses.
Prerequisites: 6 hours selected from HIST 101, HIST 102, HIST 131, and HIST 132.
Terms Typically Offered: Fall.

HIST 225 History of Colorado-GTHI1 3 Credits
History of Colorado from pre-historic to modern times.
Essential Learning Categories: History, Humanities
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

HIST 296 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

HIST 300 History of England to 1660 3 Credits
Examination of the political, social, and cultural developments of England, from the ancient period to the end of the English Civil Wars, with particular attention to England's contributions to the Western heritage.
Prerequisites: HIST 101.
Terms Typically Offered: Fall.

HIST 301 History of Modern Britain 3 Credits
Examination of the political, social, and cultural history of Great Britain, from the Restoration of the monarchy in 1660 to the modern era.
Prerequisites: HIST 102.
Terms Typically Offered: Spring.

HIST 302 History of Modern France 3 Credits
History of France, from the Revolution of 1789 to the present.
Prerequisites: HIST 102.
Terms Typically Offered: Fall.

HIST 303 History of Modern Germany 3 Credits
Origins and development of the modern Germany nation-state, from 1860 to the present.
Prerequisites: HIST 102.
Terms Typically Offered: Fall.

HIST 305 The Old South 3 Credits
The uniqueness of the Antebellum South, the growth of Southern nationalism, and the politics of the Late National period.
Prerequisites: HIST 131.

HIST 310 Latin American Civilization 3 Credits
Historical development of Latin America, from pre-Columbian times to the present.
Prerequisites: HIST 102.
Terms Typically Offered: Spring.

HIST 311 The World Wars 3 Credits
History of the First and Second World Wars and interwar years, including their causes and consequences. Focuses on key themes including military operations and strategy, the social, economic, and cultural impact of modern warfare, imperialism, and colonialism.
Prerequisites: HIST 132.
Terms Typically Offered: Fall, Spring.

HIST 314 African American History 3 Credits
History of the Black diaspora in colonial North America and the United States. Emphasis on African American cultures and politics from slavery to the present.
Prerequisites: HIST 131 or HIST 132.
Terms Typically Offered: Fall, Spring.

HIST 315 Indigenous American History 3 Credits
Indigenous American history from the pre-Columbian period to the present with an emphasis on federal policy. Case studies will also address the adaptation of Indigenous people to changing social and economic conditions.
Prerequisites: HIST 131 and HIST 132.
Terms Typically Offered: Spring.

HIST 316 American Slavery 3 Credits
Exploration of the development of race slavery and an examination of slave life in colonial North America and the United States, from Colonization through reconstruction.
Prerequisites: HIST 131.
Terms Typically Offered: Spring.

HIST 319 History of the United States-Mexico Borderlands 3 Credits
History of the U.S.-Mexico Borderlands region, beginning with Mexico's independence from Spain in 1821 and continuing through the present day. Analyses use the perspectives of race, citizenship, immigration, war, and nation-building.
Prerequisites: HIST 131 or HIST 132.
Terms Typically Offered: Fall, Spring.

HIST 320 The American West 3 Credits
The American West, from pre-Columbian times through the Twentieth Century, with special emphasis on the diverse cultures and ecological factors that have defined the region.
Prerequisites: HIST 131 or HIST 132.
Terms Typically Offered: Fall, Spring.

HIST 330 History of 19th Century Europe 3 Credits
Political, social, intellectual, and diplomatic forces operating in Europe between the French Revolution and World War I.
Prerequisites: HIST 101 and HIST 102.
Terms Typically Offered: Spring.

HIST 331 The 20th Century 3 Credits
Investigation of the development of our modern world since World War I, with emphasis on Europe and its role in that process.
Prerequisites: HIST 101 or HIST 102.
Terms Typically Offered: Spring.

HIST 332 History of Modern Warfare 3 Credits
The causes, consequences, and impact of war on history, from the 18th century to the present.
Prerequisites: HIST 101 and HIST 102.
Terms Typically Offered: Fall.

HIST 333 The International History of the Cold War 3 Credits
Exploration of the international ramifications of the Cold War, from the end of World War II to the collapse of the Soviet Union.
Prerequisites: HIST 102 and HIST 132.
Terms Typically Offered: Spring.

HIST 334 History of the British Empire 3 Credits
Exploration of the origins, development, and decline of the British Empire, from 1550 to 2000, with particular attention to the effects of empire on native peoples and the consequences of empire for Great Britain.
Prerequisites: HIST 102.
Terms Typically Offered: Fall.

HIST 340 History of the Middle East 3 Credits
History of the Middle East and North Africa, from the period of pre-Islamic Arabia through modern times, including the Umayyad, Abbasid, and Ottoman empires.
Prerequisites: HIST 101 and HIST 102.
Terms Typically Offered: Fall.

HIST 342 The Early American Republic 3 Credits
The social, cultural, intellectual, and political developments in America, from 1783-1850.
Prerequisites: HIST 131.
Terms Typically Offered: Spring.

HIST 344 The Age of Industry in America 3 Credits
Social, intellectual, and political events in the United States, from the end of the Civil War to the beginning of the Great Depression.
Prerequisites: HIST 131 or HIST 132.
Terms Typically Offered: Fall.

HIST 345 History of Immigration, Race, and Ethnicity in America 3 Credits
Exploration of the historical study of immigration, race, and ethnicity in the United States. Various approaches and unique methodologies in the study of these topics, from early American history to the present. Investigation of the ways in which economic and racial considerations shaped Americans' debates about "fitness" for citizenship, freedom, and independence.
Prerequisites: HIST 131 or HIST 132.
Terms Typically Offered: Fall, Spring.

HIST 346 The United States in the 1950s and 1960s 3 Credits
Social, intellectual, and political events in the U.S., from the end of WWII through the 1960s.
Prerequisites: HIST 132.
Terms Typically Offered: Fall, Spring.

HIST 347 Global America: 1970-2000 3 Credits
Political and social implications of America as the dominant global power, from 1970 to the present.
Prerequisites: HIST 132.
Terms Typically Offered: Fall, Spring.

HIST 348 The History of Food in America 3 Credits
Investigation of the social and cultural history of America's relationship with food. Begins with the foundational foods of the new world and concludes with contemporary food issues.
Prerequisites: HIST 131 or HIST 132.
Terms Typically Offered: Fall, Spring.

HIST 350 Renaissance and Reformation 3 Credits
Examination of the political and social context of the Renaissance and Reformation.
Prerequisites: HIST 101.
Terms Typically Offered: Spring.

HIST 355 Ancient and Medieval Cities 3 Credits
Development (physical, social, political) of cities in the ancient and medieval periods and their role in early western civilization.
Prerequisites: HIST 101.
Terms Typically Offered: Fall.

HIST 360 Medieval Europe 3 Credits
Examination of the political, social, and religious institutions of Medieval Europe (300-1475 CE).
Prerequisites: HIST 101.
Terms Typically Offered: Fall.

HIST 370 Early United States Women's History 3 Credits
Historical survey of cultural, economic, and political contributions of American women, from colonization to Reconstruction.
Prerequisites: HIST 131.
Terms Typically Offered: Fall.

HIST 371 20th Century United States Women's History 3 Credits
Historical survey of cultural, economic, and political contributions of American women, from Reconstruction to the present.
Prerequisites: HIST 131 and HIST 132.
Terms Typically Offered: Fall, Spring.

HIST 375 American Sport History 3 Credits
Examination of American society, from the Colonial era to the present, through the lens of sport.
Prerequisites: HIST 131 or HIST 132.
Terms Typically Offered: Fall.

HIST 394 Junior Seminar in Historiography 3 Credits
Examination of the role of historiography in the historical discipline, with the intent of preparing students to undertake an historical research project. Topics vary by semester, depending upon specialty of instructor.
Prerequisites: HIST 101, HIST 102, HIST 132, and HIST 202.
Terms Typically Offered: Fall.

HIST 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

HIST 396 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

HIST 399 Internship 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

HIST 400 The Soviet Union and Eastern Europe 3 Credits
Exploration of Imperial Russia, the Soviet Union, and Eastern Europe from 1900 to the present.
Prerequisites: HIST 101 and HIST 102.
Terms Typically Offered: Spring.

HIST 403 East Asia and the Modern World 3 Credits
Exploration of China, Japan, Korea, and Vietnam since 1840.
Prerequisites: HIST 101 and HIST 102.
Terms Typically Offered: Fall.

HIST 404 Senior Seminar in Historical Research 3 Credits
Approaches to history-specific research, with emphasis on utilization of primary documents and practice in conducting research and reporting results.
Prerequisites: HIST 202 and twelve hours of upper division History.
Terms Typically Offered: Spring.

HIST 405 Introduction to Public History 3 Credits
Exploration of non-academic historical skills employed in museum work, archival management, and positions with historical societies and historic preservation agencies. Career opportunities will be examined.
Prerequisites: HIST 131 or HIST 132.
Terms Typically Offered: Spring.

HIST 406 History of the African Continent 3 Credits
Exploration of African cultures from the ancient to modern periods, with particular attention to interaction with non-African cultures.
Prerequisites: HIST 101 and HIST 102.
Terms Typically Offered: Spring.

HIST 407 Digital History 3 Credits
Introduction to digital methods and technology in research and public history.
Prerequisites: HIST 101 or HIST 102 or HIST 131 or HIST 132.
Terms Typically Offered: Fall, Spring.

HIST 409 Material Culture Studies 3 Credits
Introduction to the field of material culture studies and engagement via hands-on work with a variety of historical artifacts.
Prerequisites: HIST 131 and HIST 132.
Terms Typically Offered: Spring.

HIST 410 Environmental History of the United States 3 Credits
Exploration of public attitudes and governmental policies and practices relative to the wilderness, natural resource development, and the natural environment from colonial times to the present.
Prerequisites: HIST 131 and HIST 132.
Terms Typically Offered: Fall.

HIST 415 Colonial America 3 Credits
Examination of the development of colonial society in North America and the tensions that arose between Native American, European, and African people and cultures.
Prerequisites: HIST 131.
Terms Typically Offered: Fall.

HIST 416 The American Revolution 3 Credits
Overview of and perspectives on the causes and outcomes of the American Revolution.
Prerequisites: HIST 131.
Terms Typically Offered: Fall, Spring.

HIST 420 Civil War 3 Credits
The causes and outcomes of the American Civil War.
Prerequisites: HIST 131.
Terms Typically Offered: Fall, Spring.

HIST 425 History of Sexuality 3 Credits
Historical discussions on sexuality from European contact in America to present. Analysis of gender, race, ethnicity, class, and region in historical context.
Prerequisites: HIST 132.
Terms Typically Offered: Fall, Spring.

HIST 430 The Ancient Mediterranean World 3 Credits
Exploration of the Mediterranean world from pre-classical times to the fall of the Roman Empire.
Prerequisites: HIST 101.
Terms Typically Offered: Fall.

HIST 435 Classical Archaeology 3 Credits
Exploration of the archaeological evidence for some of the ancient Mediterranean civilizations and how the historian uses archaeology to better understand the ancient world.
Prerequisites: HIST 101.
Terms Typically Offered: Fall.

HIST 440 Early and Medieval Christianity 3 Credits
Exploration of the historical development of Christianity through the Middle Ages, focusing on the social (marriage and family) and political (kingship) consequences of Christianity.
Prerequisites: HIST 101.
Terms Typically Offered: Spring.

HIST 445 The Holocaust 3 Credits
Exploration of the origins, implementation, and cultural representations of Nazi Germany's "Final Solution."
Prerequisites: HIST 102.
Terms Typically Offered: Spring.

HIST 450 European History and Film 3 Credits
Examination of the medium of film and how it shapes perceptions of European history. Focuses on the treatment of film as historical text. Postulates whether filmmakers are historians.
Prerequisites: HIST 101 and HIST 102.
Terms Typically Offered: Fall.

HIST 494 Museum Education and Interpretation Seminar 1 Credit
Exploration of theories and practices involved in designing educational experiences within a museum setting. Effective communication on the meaning and significance of artifacts and exhibits for diverse audiences will be developed.
Prerequisites: HIST 131 or HIST 132 or HIST 101 or HIST 102.
Terms Typically Offered: Fall.

HIST 495 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

HIST 496 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

HIST 499 History Internship 1-4 Credits
Experience with historical work in settings outside the university community, including museums, archives, and local, state, and federal agencies. Internship must be arranged during the semester prior to the field experience.
Prerequisites: Nine upper division hours in history, junior status, and permission of instructor.
Course may be taken multiple times up to maximum of 15 credit hours.

HIST 501 Early American History: Foundation - Civil War 3 Credits
Graduate level seminar covering the first half of American history. This course will provide graduate level instruction to prepare students to teach a collegiate level introductory course in early American history.
Prerequisites: Admission into Social Sciences Graduate Certificate Program.

HIST 502 Late American History: Civil War - Modern U.S. 3 Credits
Graduate level seminar covering the second half of American history. This course will provide graduate level instruction to prepare students to teach a collegiate level introductory course in modern American history.
Prerequisites: Admission into Social Sciences Graduate Certificate Program.

HIST 510 Early European History: Ancient - Reformation 3 Credits
Graduate level seminar covering the first half of European history. This course will provide graduate level instruction to prepare students to teach a collegiate level introductory course in early European history.
Prerequisites: Admission into Social Sciences Graduate Certificate Program.

HIST 511 Modern European History: Reformation - 20th Century 3 Credits
Graduate level seminar covering the second half of European history. This course will provide graduate level instruction to prepare students to teach a collegiate level introductory course in modern European history.
Prerequisites: Admission into Social Sciences Graduate Certificate Program.

Honors (HNRS)

Courses

HNRS 196 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

HNRS 396 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

HNRS 496 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

HNRS 498 Honors Thesis 3 Credits
Course may be taken multiple times up to maximum of 9 credit hours.

Hospitality Management (HMGT)

Courses

HMGT 101 Travel Industry I 3 Credits
Introduction to tourism and its relationship to the business world. Includes an overview of all sectors of business and the components of the travel, tourism, and hospitality industry. Travel methods, destination resorts, and other businesses which serve the traveler are evaluated. A requirement for all Hospitality Management students.
Terms Typically Offered: Fall.

HMGT 103 Travel and Tourism Marketing Techniques 3 Credits
Interpretation of marketing problems, strategies, and techniques of industries engaged in serving the traveler, methods of identifying potential markets, preferences, and likely responses to promotional programs of private and governmental travel entities. Required of all Hospitality Management students. MARK 231 recommended for baccalaureate students.
Prerequisites: HMGT 101 or permission of instructor.

HMGT 295 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

HMGT 296 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

HMGT 299 Internship 1-12 Credits
Classroom studies combined with salaried work in an experience which relates to the student's career goal. Only for, and required of, Hospitality Management students. Credit not available through competency or challenge.
Prerequisites: Permission of instructor.
Terms Typically Offered: Fall, Spring, Summer.
Course may be taken multiple times up to maximum of 15 credit hours.

HMGT 310 Travel and Tourism Marketing Techniques 3 Credits
Interpretation of marketing problems, strategies, and techniques of industries engaged in serving the traveler. Study will include advanced methods of identifying potential markets, preferences and likely responses to promotional programs of private and public travel entities. Required of all Hospitality Management majors.
Prerequisites: HMGT 101, MARK 231 or permission of instructor.

HMGT 311 Experiential Travel 3 Credits
Intensive course structured around faculty-led, short-term travel to selected destinations. Topics include economic, socio-cultural, environmental, legal-political, and technological influences on travel and tourism in business sectors.
Prerequisites: Junior standing.
Terms Typically Offered: Spring, Summer.

HMGT 317 Hospitality Technology 3 Credits
Comprehensive exploration of the essential knowledge and skills needed to thrive in the dynamic and technology-driven world of hospitality. This course covers the intersection of hospitality and technology, offering a deep dive into the tools, systems, and innovations that shape the modern guest experience and streamline operational processes.
Prerequisites: HMGT 101.
Terms Typically Offered: Spring.

HMGT 370 Managing Quality Service 3 Credits
Introduction of quality service management necessary for the overall management process to be successful. This course emphasizes a sound set of principles for service management with application to operations, marketing, and human resources. Practical applications, case studies and a service audit project are included.
Prerequisites: Junior standing.
Terms Typically Offered: Spring.

HMGT 371 Events Management 3 Credits
Overview of the meetings and events industry, including career opportunities. An applied approach is utilized in the planning, proposal, and execution phases of event planning to support the academic course materials.
Prerequisites: HMGT 101.
Terms Typically Offered: Fall.

HMGT 396 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

HMGT 410 Hospitality Facilities Management 3 Credits
Hotel or restaurant physical plant management. Interface with engineering and maintenance departments.
Prerequisites: HMGT 101.
Terms Typically Offered: Fall.

HMGT 417 Applied Hospitality Operations 3 Credits
Overview of hospitality operations in an on-campus full-service hotel. Students will interface with all departments through a complex simulation and on-site shadowing of each department.
Prerequisites: HMGT 101.
Terms Typically Offered: Fall.

HMGT 450 Strategic Hospitality Sales and Marketing 3 Credits
Strategic and operating sales and marketing plans for hospitality properties. Includes development of a sales and marketing plan as a semester project.
Prerequisites: MARK 231 or permission of instructor.

HMGT 470 Hospitality Management Strategies 3 Credits
Comprehensive overview of major hospitality industry management segments. Includes management strategies adapting to the rapidly changing hospitality industry environment.
Prerequisites: HMGT 101, HMGT 417, and HMGT 450.
Terms Typically Offered: Spring.

HMGT 495 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

HMGT 496 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

HMGT 499 Internship 1-12 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Human Resource Management (HRMA)

Courses

HRMA 371 Human Resource Management 3 Credits
Principles and applications of basic human resource management (HRM). Survey of the HRM functions in organizations. Topics include: staffing, training and development, compensation, safety and health, employee and labor relations, and employee performance management.
Prerequisites: MANG 201, junior or senior standing.
Terms Typically Offered: Fall, Spring, Summer.

HRMA 372 Employee Recruitment and Selection 3 Credits
Effective analysis and forecasting of organizational staffing requirements. Assessment, recruitment, and selection of candidates, as well as effective retention of employees in today's complex organizations. Legal aspects of staffing process emphasized.
Prerequisites: HRMA 371.
Terms Typically Offered: Fall, Spring.

HRMA 373 Human Resource Management, Leadership, Ethics, and Social Responsibility 3 Credits
Review of literature related to Human Resource Management (HRM) and leadership, ethics, and corporate social responsibility. Review articles and books related to the responsibility of HRM leaders and their significant influence on organizational practices, leadership, ethical behavior, and corporate social responsibility.
Prerequisites: HRMA 371 or permission of instructor.

HRMA 474 Training and Development 3 Credits
Functions of training and development as applied in both large and small business environments. The role of training and development in the current business environment is considered with regard to learning theory, learning objectives, instructional methods, and needs assessment. Focus will be placed on evaluation of training effectiveness and emerging concepts in workplace education.
Prerequisites: HRMA 371.
Terms Typically Offered: Fall.

HRMA 475 Compensation and Reward Systems 3 Credits
Design of strategic compensation systems. Seniority, merit, incentive pay, person-focused pay. Job evaluation, internal, and external equity. Benefits administration. International, executive, and flexible workforce compensation systems. Diversity and ethical considerations.
Prerequisites: HRMA 371.
Terms Typically Offered: Spring.

HRMA 478 Advanced Human Resource Management 3 Credits
Capstone course for Human Resource Management concentration. Application of human resource practices.
Prerequisites: HRMA 371, HRMA 372, HRMA 474, HRMA 475, and senior standing.
Terms Typically Offered: Spring.

HRMA 495 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

HRMA 520 Human Resource Management 3 Credits
In-depth study of the effective use and adaptation to the human resources of an organization through the management of people-related activities. The focus is on the core responsibilities and activities of the HR manager. Includes a detailed review of current statutes and regulations affecting the HR field.
Terms Typically Offered: Spring.

Humanities (HUMA)

Courses

HUMA 196 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

HUMA 201 Field Studies in Humanities 1-3 Credits
Study/travel tours of varying lengths in the United States and foreign countries to acquaint students in some depth with particular aspects of world culture (language, the arts, literature, etc.) both contemporary and historical.

HUMA 296 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

HUMA 300 History and Development of Books 3 Credits
History and development of the book from the development of the alphabet to the present in the context of changing technologies and various social, cultural, and economic influences.
Prerequisites: Junior or senior standing, or permission of instructor.

HUMA 301 Field Studies in Humanities 1-3 Credits
Prerequisites: Junior or above standing.

HUMA 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

HUMA 396 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

HUMA 495 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

HUMA 496 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

HUMA 499 Internship 8 Credits
See faculty advisor for details.
Course may be taken multiple times up to maximum of 15 credit hours.

Innovation (INOV)

Courses

INOV 310 The Process of Innovation 3 Credits
Introduction to the process and key components of innovation. Topics include investigation of major innovations throughout history and how to hone design thinking to improve analytical, critical thinking, creativity and problem solving skills. Students will become certified to operate equipment at the Mav Innovation Center; the Business Incubator Center Makerspace; and co-working spaces across Grand Junction.
Terms Typically Offered: Fall, Spring.

INOV 320 Innovation Launch 3 Credits
Introduction to the process of turning an idea into a successful business – ideation through commercialization. Students create blueprints for ideas and strategies that become the foundation for a successful business.
Terms Typically Offered: Fall, Spring.

INOV 399 Internship 1-9 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

INOV 450 Innovation Garage 3 Credits
Research, data analysis, prototype building, and creation of technical report findings in teams. Students will use equipment at the Mav Innovation Center; the Business Incubator Center Makerspace; and co-working spaces across Grand Junction. Commercialization of an innovation is expected. Teams generally work with Mav Innovation Center Sponsor companies.
Terms Typically Offered: Fall, Spring.

INOV 499 Internship 1-9 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

International Studies (INTS)

Courses

INTS 396 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Kinesiology-Academic (KINE)

Courses

KINE 100 Health and Wellness 1 Credit
Information concerning the benefits, positive effects, assessment, and implementation of healthy life styles.
Terms Typically Offered: Fall, Spring, Summer.

KINE 195 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

KINE 200 Foundations of Kinesiology 3 Credits
Orientation to the history and philosophy of kinesiology and the development of various sub-disciplines. Introduction to career pathways.
Terms Typically Offered: Fall, Spring, Summer.

KINE 203 Human Nutrition 3 Credits
Introduction to the science of the effects of food on the body and the body's need for and utilization of essential nutrients.
Terms Typically Offered: Fall, Spring.

KINE 205 Introduction to Sport Management 3 Credits
Survey and introduction to the field of sport management.
Terms Typically Offered: Fall, Spring.

KINE 211 Methods of Lifetime, Individual, and Dual Activities 3 Credits
Instructional content (scope and sequence) and teaching methodology related to various individual, dual, and lifetime activities appropriate for K-12 physical education.
Terms Typically Offered: Fall.

KINE 213 Applications of Physical Fitness and Exercise Prescription 3 Credits
Exercise program design and prescription to meet individual needs, including assessment of existing exercise programs and evaluation of their effectiveness. Major components of cardio-respiratory endurance, muscular strength, muscular endurance, flexibility, and body composition discussed in detail.
Prerequisites: KINE 100; KINE 200 (may be taken concurrently).
Terms Typically Offered: Fall, Spring.

KINE 214 Methods of Team Activities 3 Credits
Instructional content (scope and sequence) and teaching methodology related to various team activities appropriate for K-12 physical education.
Terms Typically Offered: Spring.

KINE 251 Water Safety Instructor Course 3 Credits
Instructional content (scope and sequence) and teaching methodology related to various aquatic activities.
Terms Typically Offered: Spring.

KINE 256 Methods of Creative Play, Dance, Gymnastics, and Literacy 3 Credits
Instructional content (scope and sequence) and teaching methodology related to creative play, dance, gymnastics, and literacy activities.
Prerequisites: KINE 211 or KINE 214.
Terms Typically Offered: Spring.

KINE 260 School Health Education 3 Credits
School health issues. Emphasis on development of proper health attitudes and practices, teaching methodology, and application of health knowledge and practice in school and public health situations.
Prerequisites: KINE 100.
Terms Typically Offered: Fall, Spring.

KINE 265 Emergency Care 3 Credits
Knowledge and skills required to meet the needs of emergency care situations. Course leads to obtaining valid First Aid and CPR/AED for the Health Care Provider cards as well as experience associated with care and prevention of common injuries experienced by the physically active.
Terms Typically Offered: Fall, Spring.

KINE 296 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

KINE 297 Practicum 1-2 Credits
Work-oriented instruction involving the implementation of classroom or laboratory experience under the direct supervision of a faculty member.
Terms Typically Offered: Fall, Spring, Summer.
Course may be taken 4 times for credit.

KINE 301 Health and Fitness Assessment 3 Credits
Health and fitness testing and evaluation for children, athletes, and adults of all ages and abilities. Statistical techniques for exercise testing analyses.
Prerequisites: KINE 213.

KINE 303 Physiology of Exercise 3 Credits
Effects of various types of exercise on human body structure and function.
Prerequisites: KINE 213, BIOL 209/BIOL 209L, and KINE 301 (KINE 301 may be taken concurrently).
Corequisites: KINE 303L.
Terms Typically Offered: Fall, Spring.

KINE 303L Physiology of Exercise Laboratory 1 Credit
Effects of various types of exercise on human body structure and function.
Prerequisites: KINE 213, BIOL 209/BIOL 209L, and KINE 301 (KINE 301 may be taken concurrently).
Corequisites: KINE 303.
Terms Typically Offered: Fall, Spring.

KINE 307 Philosophy and Psychology of Coaching 3 Credits
Fundamental philosophical and psychological principles related to coaching competitive athletic teams.
Terms Typically Offered: Fall.

KINE 308 Philosophy and Psychology of Officiating 3 Credits
Exploration of athletic officiating through a philosophical and psychological perspective. Identification of professional requirements to enter the officiating field.
Terms Typically Offered: Spring.

KINE 309 Anatomical Kinesiology 3 Credits
Analysis of joint movement and muscular involvement during physical activity.
Prerequisites: BIOL 209/BIOL 209L.
Terms Typically Offered: Fall, Spring.

KINE 310 Methods of Exercise Instruction 3 Credits
Practical experience in teaching safe and effective exercise for multiple populations.
Prerequisites: KINE 213 and KINE 309.
Terms Typically Offered: Fall, Spring.

KINE 320 Methods of Teaching Physical Education in Elementary Schools 3 Credits
Exploration of the physical education content and teaching methods appropriate for elementary school education.
Prerequisites: EDUC 115, EDUC 215, and KINE 256.
Terms Typically Offered: Spring.

KINE 321 Physical Activity and Health in the Classroom 3 Credits
Integration of health and physical activity concepts in the gym and classroom. For education majors.
Terms Typically Offered: Fall, Spring.

KINE 330 Prevention and Evaluation of Injuries to the Physically Active 3 Credits
Procedures and techniques involved in preventing and evaluating common injuries associated with physically active individuals.
Terms Typically Offered: Fall, Spring, Summer.

KINE 333 Community Health 3 Credits
Introduction to the areas of epidemiology, disease prevention and control, environmental health, health care, injury prevention, and safety education.
Terms Typically Offered: Fall, Spring, Summer.

KINE 334 Sport Management 3 Credits
Theoretical and applied knowledge in management principles and techniques. Focus on the theory and practical applications of planning, leading, organizing and evaluating.
Prerequisites: KINE 200, KINE 205, and MANG 201.
Terms Typically Offered: Fall, Spring.

KINE 335 Sport in Society 3 Credits
Sociology of sport, covering the cultural traditions, social values, and psychosocial experiences of sport from antiquity to today.
Prerequisites: KINE 205.
Terms Typically Offered: Fall, Spring, Summer.

KINE 340 Sport Operations 3 Credits
Theoretical background and practical applications designed to provide a framework for the management of resources associated with planning, implementing, and evaluating festivals and special events.
Terms Typically Offered: Fall, Spring, Summer.

KINE 342 Sport Law and Recreation Risk Management 3 Credits
Legal duties, responsibilities, rights, and risk management techniques involved in sport and recreation.
Prerequisites: Junior status.
Terms Typically Offered: Fall, Spring.

KINE 345 Survey of Economics and Finance in Sport 3 Credits
Economic, financial, and managerial accounting concepts for sport.
Prerequisites: ECON 201 and KINE 205.
Terms Typically Offered: Fall, Spring.

KINE 350 Leadership and Ethics in Sport 3 Credits
Exploration of the various aspects of leadership. Survey of the development and application of moral and ethical values in sport administration settings.
Terms Typically Offered: Fall, Spring.

KINE 360 Motor Learning 3 Credits
Foundations of motor learning and the relation of motor performance to other aspects of behavior.
Terms Typically Offered: Fall.

KINE 370 Biomechanics 3 Credits
Application of mechanical principles and anatomical structure to human movement using quantitative analysis methods.
Prerequisites: BIOL 209/BIOL 209L and KINE 309.
Corequisites: KINE 370L.
Terms Typically Offered: Fall, Spring.

KINE 370L Biomechanics Laboratory 1 Credit
Application of mechanical principles and anatomical structure to human movement using quantitative analysis methods.
Prerequisites: BIOL 209/BIOL 209L and KINE 309.
Corequisites: KINE 370.
Terms Typically Offered: Fall, Spring.

KINE 394 Kinesiology Junior Seminar 1 Credit
Discussion and preparation for professional development in Kinesiology.
Prerequisites: KINE 303.
Terms Typically Offered: Fall, Spring.

KINE 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

KINE 396 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

KINE 397 Practicum 1-2 Credits
Course may be taken 5 times for credit.

KINE 399 Internship 1-6 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

KINE 401 Organization, Management, and Legal Liabilities for Youth Fitness Programs 3 Credits
Approaches to organizational structures, administrative techniques, and long-term athletic development in youth fitness programs. Use of technology to measure fitness, legal and safety issues, and guiding youth to create their own fitness plans. Students will apply information from the course in K-12 teaching situations.
Terms Typically Offered: Fall, Spring, Summer.

KINE 402 Sport Marketing 3 Credits
Application of the principles of promotion and marketing to the sport and fitness industry, including the areas of professional sports, corporate fitness, college/high school athletics, clubs and resorts, and others.
Prerequisites: KINE 205 and MARK 231.
Terms Typically Offered: Fall, Spring, Summer.

KINE 403 Advanced Strength and Conditioning 3 Credits
Strength and conditioning program design and considerations based on activity and sport type.
Prerequisites: KINA 128, KINE 303/KINE 303L, and KINE 309.
Terms Typically Offered: Fall, Spring.

KINE 404 Clinical Exercise Physiology and Advanced Exercise Prescription 3 Credits
Clinical risk stratification for conducting health and fitness assessments. Exercise program design for healthy individuals and individuals with medically controlled disease.
Prerequisites: KINE 303/KINE 303L and KINE 309.
Terms Typically Offered: Fall, Spring.

KINE 405 Sports Nutrition 3 Credits
In-depth study of macronutrient metabolism as it relates to sport. Practical consideration in the use or non-use of carbohydrate supplements, vitamins, and/or other ergogenic aids.
Prerequisites: KINE 203 and KINE 303/KINE 303L.
Terms Typically Offered: Fall, Spring, Summer.

KINE 406 Governance and Communication in Sport 3 Credits
Overview of the laws and rules governing various sport organizations, from interscholastic to professional sport, as well as the major means of sport communication.
Terms Typically Offered: Fall, Spring, Summer.

KINE 408 Methods of Teaching Physical Education in Secondary Schools 3 Credits
Instructional strategies on a practical application level for prospective secondary physical education teachers preparatory to entry into student teaching. Field experiences are required to supplement lectures and discussions.
Prerequisites: EDUC 215, KINE 214, and KINE 301.
Terms Typically Offered: Fall.

KINE 411 Worksite Health Promotion 3 Credits
Worksite health promotion, including its description, planning, implementation, marketing, and evaluation.
Prerequisites: KINE 213.
Terms Typically Offered: Fall, Summer.

KINE 415 Physical Activity and Aging 3 Credits
Study of the dynamic relationship between physical activity and the aging process. Course focuses on the impact of physical activity on the physiological, psychological, and social well-being of older adults.
Prerequisites: KINE 303/KINE 303L.
Terms Typically Offered: Fall, Spring, Summer.

KINE 417 Health Behavior Change 3 Credits
Introduction to the areas of psychosocial, cultural, and situational factors that influence the voluntary behavior change process. Review of the theories related to health behavior.
Terms Typically Offered: Spring.

KINE 420 Therapeutic Interventions 3 Credits
Review of the theoretical underpinnings, scientific basis, and practical use of contemporary therapeutic techniques for the treatment of acute and chronic musculoskeletal injuries.
Terms Typically Offered: Fall, Spring.

KINE 430 Medical Conditions and Pharmacology in the Physically Active 3 Credits
Overview of the effects of selected, pre-existing, medical conditions, and pharmacological agents on physical activity.
Terms Typically Offered: Fall, Spring, Summer.

KINE 440 Clinical Anatomy 3 Credits
Application of anatomy as it relates to injury pathologies for future healthcare practitioners. Skill acquisition of clinical palpation, range-of-motion assessment, and manual muscle testing.
Prerequisites: KINE 309.
Terms Typically Offered: Summer.

KINE 480 Inclusive Physical Activity 3 Credits
Study of physical activities, modifications, and adaptations for individuals with disabilities.

KINE 487 Structured Research 1-3 Credits
Capstone research experience with a formal manuscript and presentation. Topic, methods, and writing are to be guided and approved by a faculty member.
Prerequisites: KINE 303, senior standing, and permission of instructor.
Course may be taken multiple times up to maximum of 6 credit hours.

KINE 494 Kinesiology Senior Seminar 1 Credit
Discussion and research of current issues in kinesiology and exercise physiology.
Prerequisites: Senior status.
Terms Typically Offered: Fall, Spring.

KINE 494A Sport Management Senior Seminar 1 Credit
Discussion and research of current issues in sport management.

KINE 495 Independent Study 1-5 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

KINE 496 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

KINE 497 Pre-Internship in Physical Education 3 Credits
Standards-based education and teaching practices in a K-12 physical education setting.
Prerequisites: KINE 320, KINE 408, and senior standing.
Terms Typically Offered: Fall, Spring.

KINE 499 Internship 3-12 Credits
Work experience obtained on a job where assignments are related to the student's specific concentration area within the Kinesiology degree.
Prerequisites: Kinesiology major and senior standing.
Course may be taken multiple times up to maximum of 15 credit hours.

KINE 500 Facility and Equipment Management in Sport and Fitness 3 Credits
In-depth study of the facilities and equipment used in a variety of sport and fitness settings, from public to private organizations, educational settings, athletics (interscholastic, intercollegiate, and professional sports), as well as commercial and corporate fitness centers. The focus is on designing, planning, funding, and maintaining a facility as well as the equipment necessary for its successful operation.
Terms Typically Offered: Spring.

KINE 501 Research Methods 3 Credits
Examination of the methods of research in kinesiology. Topics will include: selection of the problem, hypothesis testing, historical research, descriptive research, experimental research, tools of research, and data interpretation.
Terms Typically Offered: Fall.

KINE 502 Sport Marketing 3 Credits
Overview of marketing in sport. Emphasis on enabling the marketing manager to create strategies that "fit" products and services to an athletic department or sport organization's distinctive competencies and target market. Development of decision-making skills in marketing and overview of the marketing management process. Case studies in sport marketing address and exemplify issues in creating and implementing the marketing strategy.
Terms Typically Offered: Spring.

KINE 510 Event and Program Management in Sport and Fitness 3 Credits
Duties and responsibilities of sport and fitness managers in creating policies, conducting events, and developing programs for sport or fitness organizations. Includes extensive examination of the topics and issues involved in the planning, funding, promotion, implementation, and evaluation of events and programs.
Terms Typically Offered: Spring.

KINE 520 Management Policies and Regulations in Sport and Fitness 3 Credits
Study of managerial policies and regulations to specific sport and fitness organizations, including educational, athletic, commercial, and corporate entities. Topics include: human resource management; labor relations; policy issues; sponsorship; budgeting; federal, state, and local statues; CHSAA and NCAA rules and guidelines; and professional organization policies. Specific attention given to compliance strategies.
Terms Typically Offered: Spring.

KINE 530 Advanced Coaching for Basketball 1 Credit
Examination of the trends, techniques, methods and philosophies in coaching basketball at skilled levels. Specific attention is given to video analysis and game management.

KINE 534 Advanced Injury Management for Coaches 1 Credit
Specialized procedures and techniques involved in the prevention and management of common athletic injuries.

KINE 535 Sport in Society 3 Credits
Exploration of the role and impact of sports in our society from a social view. The course will discuss various sociological constructs that impact all levels of sport participation, including amateur and professional team sports and the challenges of these constructs in managing sport organizations.
Terms Typically Offered: Fall.

KINE 542 Sport Law and Ethics 3 Credits
Legal issues pertaining to amateur and professional sports. Analysis of tort law, negligence, contract, antitrust, labor, facility, exculpatory, and licensing law in the context of sports-related cases. This course examines moral and ethical issues within sport environments, including major social criticisms and constructs of sport, analysis of relevant ethical theories, and synthesis of ethical reasoning knowledge and skills.
Terms Typically Offered: Fall.

KINE 545 Sport Finance 3 Credits
Study of the basic financial considerations for an effective sports management professional, including the financial challenges facing the profession, sources of funding, budgeting and financial statements, the concept of economic impact analysis, and the pros and cons of using public-sector funds.
Terms Typically Offered: Fall.

KINE 550 Contemporary Issues in Sport Management 3 Credits
Overview of sport through the examination of problems and issues faced by contemporary sport managers. The subject matter will focus on current events, topics, and implications surrounding the justification for sport programs.
Terms Typically Offered: Fall.

KINE 587 Research 3 Credits

KINE 590 Thesis I 3 Credits
Controlled learning experience supervised by faculty and guided by a contract that specifies student learning outcomes and assignments. Prior to registering, the student must meet with a Sport Management faculty member to approve a topic.
Prerequisites: KINE 501.
Terms Typically Offered: Spring.

KINE 591 Directed Readings 3 Credits

KINE 592 Thesis II 3 Credits
Continuation of controlled learning experience supervised by faculty and guided by a contract that specifies student learning outcomes and assignments. Prior to registering, the student must meet with a Sport Management faculty member to approve a topic.
Prerequisites: KINE 590.
Terms Typically Offered: Summer.

KINE 595 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

KINE 599 Internship 1-6 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Kinesiology-Activity (KINA)

Courses

KINA 101 Beginning Swimming 1 Credit
Introduction to the basic swimming strokes and knowledge needed to prevent aquatic emergencies. Prepare students to acquire proper competitive swimming skills.
Terms Typically Offered: Fall, Spring.

KINA 102 Intermediate Swimming 1 Credit
Continued development of swimming and water safety skills. Enhance swimming fitness and overall conditioning.
Terms Typically Offered: Fall, Spring.

KINA 103 Springboard Diving 1 Credit
Instruction of the basic techniques and mechanics of springboard diving. Develop proper competitive diving skills.
Terms Typically Offered: Fall, Spring.

KINA 104 Water Polo 1 Credit
Introduction to the basic skills and rules of water polo. Progression of skills leading into full scrimmages.
Terms Typically Offered: Fall, Spring.

KINA 105 Water Aerobics 1 Credit
Conditioning program in the pool that emphasizes muscle tone, strength, flexibility, balance, coordination, and cardiovascular endurance.
Terms Typically Offered: Fall, Spring.

KINA 106 Beginning Scuba 1 Credit
Introduction to snorkeling techniques, scuba gear preparation, equipment maintenance, and 20 basic scuba skills. Designed to prepare students for a certification by helping them become safe, comfortable, and confident divers.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

KINA 107 Advanced Scuba 1 Credit
Advanced scuba skills and dives to expand safety, confidence, and enjoyment of scuba diving. Designed for certified scuba divers.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

KINA 108 Canoeing 1 Credit
Introduction to the basic skills and safety of canoeing. Students will learn how to use the equipment involved, as well as how to scout the river.
Terms Typically Offered: Fall, Summer.

KINA 111 Rock Climbing 1 Credit
Introduction to the sport of rock climbing. Students will learn how to use equipment, tie knots, belay, communicate, basic climbing movements, and proper progression.
Terms Typically Offered: Fall, Spring.

KINA 112 Hiking 1 Credit
Introduction to hiking. Students will learn how to read a map, be safe while hiking, and properly prepare for a hike.
Terms Typically Offered: Fall, Spring.

KINA 115 Beginning Golf 1 Credit
Introduction to the fundamentals, rules, and regulations of golf. Students will learn skills such as putting, chipping, and driving the ball, as well as proper golf etiquette.
Terms Typically Offered: Fall, Spring.

KINA 115A Disc Golf and Ultimate Frisbee 1 Credit
Introduction to the fundamental knowledge and skills of disc golf and ultimate frisbee. Students will learn the fundamental skills of throwing and catching, as well as the rules and strategies of the game.
Terms Typically Offered: Fall, Spring.

KINA 116 Intermediate Golf 1 Credit
Development of the student's golf skills. Designed to refine the skills and strategies to ensure students can compete at an intermediate level.
Terms Typically Offered: Fall, Spring.

KINA 117 Badminton 1 Credit
Introduction to the fundamental knowledge and skills of badminton. Students will enhance their skills related to the various serves and shots including drop, lob, clear, and smash shots. Instruction will include an emphasis on the fundamental strategies and rules used in both singles and doubles play.
Terms Typically Offered: Fall, Spring.

KINA 118 Karate 1 Credit
Introduction to the history, culture, and practice of Okinawan Karate. Students will learn the basic terminology, warm-up procedure, and moving drills associated with the art of Karate.
Terms Typically Offered: Fall, Spring.

KINA 119 Archery 1 Credit
Introduction to the basic skills of archery. Students will learn about the safety, rules, equipment, and regulations associated with archery.
Terms Typically Offered: Fall, Spring.

KINA 121 Beginning Tennis 1 Credit
Introduction to the basic skills of tennis. Topics include forehand, backhand, serve, and volley. Students will learn strategies, history, rules, and etiquette of tennis.
Terms Typically Offered: Fall, Spring.

KINA 121A Pickleball 1 Credit
Introduction to the fundamental knowledge and skills of pickleball. Students will enhance their skills related to the various serves and shots including drop, lob, clear, and smash shots. Instruction will also emphasize the fundamental strategies and rules used in both singles and doubles play.
Terms Typically Offered: Fall, Spring.

KINA 122 Intermediate Tennis 1 Credit
Development and refinement of the fundamentals of tennis. Students will learn advanced strokes and strategies that can be used to compete at an intermediate level.
Terms Typically Offered: Fall, Spring.

KINA 123A Racquet Sports 1 Credit
Combination of racquetball, pickleball, and badminton. Introduction to rules, shots and strategies for each game.
Terms Typically Offered: Fall, Spring.

KINA 126 Fitness Walking 1 Credit
Individualized approach to fitness walking. Students will gain knowledge about fitness principles and practices, as well as improve one's individual fitness levels.
Terms Typically Offered: Fall, Spring, Summer.

KINA 127 Physical Conditioning 1 Credit
Introduction to basic skills in physical conditioning and new fitness concepts. Students will gain knowledge on developing and executing an exercise program that combines strength training and cardiovascular endurance training.
Terms Typically Offered: Fall, Spring.

KINA 128 Intermediate Weight Training 1 Credit
Proper guidelines, principles, and techniques of weight lifting. Development of muscular strength, endurance, and power at an advanced level. Introduces Olympic lifting techniques. Continues development of individual weight training programs and advanced evaluation techniques.
Terms Typically Offered: Fall, Spring.

KINA 129 Weight Training 1 Credit
Introduction to weight training principles and application with an individualized approach. Students will learn to design and implement a weight training program tailored to their own fitness goals.
Terms Typically Offered: Fall, Spring.

KINA 131A Aerobics 1 Credit
Aerobics to strengthen the cardiovascular system using low- or high-impact movements. Topics include workouts on the floor, bench, stability ball, and circuits.
Terms Typically Offered: Fall, Spring.

KINA 133 Downhill Skiing 1 Credit
Introduction to the knowledge, techniques, equipment, and safety necessary for participating in downhill skiing. Students will learn about the safety, practice, and etiquette associated with the snow sport.
Terms Typically Offered: Spring.

KINA 134 Snowboarding 1 Credit
Introduction to the knowledge, techniques, equipment, and safety necessary for participating in snowboarding. Students will learn about the safety, practice, and etiquette associated with the snow sport.
Terms Typically Offered: Spring.

KINA 136A Barre 1 Credit
Introduction to the practice of Barre. Students will learn low-impact exercises designed to develop whole body strength, awareness, and control, for various fitness levels. Focus on increasing overall strength, muscle balance, coordination and flexibility.
Terms Typically Offered: Fall, Spring.

KINA 137 Fencing 1 Credit
Introduction to the basic skills and rules involved in fencing. Students will develop strategies for both attacking and defending using all three weapons (foil, saber, epee) of fencing.
Terms Typically Offered: Fall, Spring.

KINA 137A Intermediate Fencing 1 Credit
Development of basic fencing skills and strategies. Footwork and handwork skills will be developed to ensure students can compete at an intermediate level.
Terms Typically Offered: Fall, Spring.

KINA 138 Step Aerobics 1 Credit
Basic aerobic step patterns with the freedom of creativity. Students will learn choreographic terminology, as well as improve their cardiovascular fitness through aerobic step training.
Terms Typically Offered: Fall, Spring.

KINA 140 Snowshoeing 1 Credit
Introduction to snowshoeing. Topics include on- and off-trail techniques for various terrains, recognition and treatment of cold injuries, risk management, and trip planning.
Terms Typically Offered: Spring.

KINA 142 Self-Defense 1 Credit
Fundamental applications of Jujitsu, boxing, karate, wrestling, and Kung Fu. Students will learn the proper maneuvers for a variety of potential real-life combative situations.
Terms Typically Offered: Fall, Spring.

KINA 144 Pilates 1 Credit
Introduction to the practice of Pilates. Students will learn low-impact mat exercises designed to develop whole body awareness and control for various fitness levels. Focus is on increasing core strength and stabilization, muscle balance, tone, coordination, and flexibility.
Terms Typically Offered: Fall, Spring.

KINA 146 Indoor Cycling 1 Credit
Basic concepts associated with indoor cycling. Emphasis on building cardiorespiratory endurance through structured, individually-paced indoor cycling workouts.
Terms Typically Offered: Fall, Spring.

KINA 151 Adaptive Physical Activity 1 Credit
Adaptive physical activity for students with a variety of disabilities, including both temporary and permanent injuries. Focus is on an individualized program that could include training and activity in muscle strength and endurance, flexibility, motor skills, swim skills, and/or cardiovascular endurance.
Terms Typically Offered: Fall, Spring.

KINA 152 Softball 1 Credit
Introduction to the fundamental skills of softball. Topics include the rules and regulations of the game and how to play each position on the field.
Terms Typically Offered: Fall, Spring.

KINA 156 Soccer 1 Credit
Introduction to the basic skills and techniques of soccer. Topics include rules, strategies, and the etiquette involved in a game situation.
Terms Typically Offered: Fall, Spring.

KINA 157 Adaptive Physical Activity II 1 Credit
Activity course for students with temporary and permanent disabilities. This course continues with the development of individualized training and activities that improve one's muscular strength, muscular endurance, flexibility, motor skills, swimming skills, and/or cardiovascular endurance.
Terms Typically Offered: Fall, Spring.

KINA 160A Nordic Skiing 1 Credit
Introduction to Nordic skiing techniques for groomed tracks and ungroomed snow conditions. Emphasizes speed control, efficient body movement, and safety. Covers basic winter survival techniques, proper clothing, and trail etiquette.
Terms Typically Offered: Fall, Spring.

KINA 161 Two-Person Outdoor Volleyball 1 Credit
Exploration of the game of sand volleyball as a lifetime activity. Students build on their basic understanding of volleyball skills and game strategies.
Terms Typically Offered: Fall, Spring.

KINA 162 Volleyball 1 Credit
Introduction course of the fundamentals of volleyball including passing, serving, setting, and spiking. Students will learn rules and court strategies involved in the game and be able to demonstrate their skills in game-play.
Terms Typically Offered: Fall, Spring.

KINA 163 Intermediate Volleyball 1 Credit
Enhancement of basic skills of volleyball learned as a beginner volleyball player. Advanced techniques taught such as, blocking, setting, and hitting. Different strategies of offense and serving will be emphasized.
Terms Typically Offered: Fall, Spring.

KINA 164 Beginning Basketball 1 Credit
Introduction to the fundamental skills of basketball. Acquaints the student with the knowledge and skills necessary to participate in the game of basketball while acquiring the necessary physical fitness to play the sport.
Terms Typically Offered: Fall, Spring.

KINA 165 Intermediate Basketball 1 Credit
Development of basketball skills and knowledge at an intermediate level. This course covers the implementation of set plays and skills through drills and game play.
Terms Typically Offered: Fall, Spring.

KINA 166 Flag Football 1 Credit
Introduction to the fundamental skills, rules, and strategies of flag football. Students will learn the safety and etiquette of the game.
Terms Typically Offered: Fall, Spring.

KINA 166A Touch Rugby 1 Credit
Introduction to the basic skills of touch rugby. This course emphasizes ball handling and attacking strategies. Students will learn the rules and the history of the game.
Terms Typically Offered: Fall, Spring.

KINA 167 Tai Chi 1 Credit
Introduction to the ancient Chinese traditional martial art of Tai Chi as an effective way to reduce stress levels, improve health, and increase the ability to focus. Students will develop a relaxed sequence of moves that emphasize proper alignments and release muscular tension, aiding in preventing and recovering from injuries.
Terms Typically Offered: Fall, Spring.

KINA 168 Introduction to Yoga 1 Credit
Fundamental poses for the practice of yoga, stress reduction techniques, and strength and flexibility development.
Terms Typically Offered: Fall, Spring.

KINA 169 Hatha Yoga & Relaxation 1 Credit
Participation in the practice of Hatha yoga, including the integration of mind-body, stress reduction techniques, strength and flexibility enhancement.
Terms Typically Offered: Fall, Spring.

KINA 169A Flow Yoga 1 Credit
Participation in the practice of Vinyasa yoga with an emphasis on synchronizing breath and movement to enhance strength and focus.
Terms Typically Offered: Fall, Spring.

KINA 170 Zumba 1 Credit
Introduction to Zumba, Latin dance styles, through a variety of choreographed songs. Topics include basic information about aerobic training, how to perform basic Latin steps, and how to design a choreographed Latin-based dance routine.
Terms Typically Offered: Fall, Spring.

KINA 171 Adaptive Skiing/Snowboarding 1 Credit
Adaptive snowsports for students with all types of disabilities. Students will develop knowledge, techniques, and an understanding of the safety involved in skiing/snowboarding. Specialized equipment will be available and customized depending on abilities.
Terms Typically Offered: Spring.

KINA 174 Social Dance 1 Credit
Introduction to partner dancing in common styles of social dance. Styles for each course will be specific to instructor expertise.
Terms Typically Offered: Fall, Spring.

KINA 175 Snorkeling/Free Diving 1 Credit
Introduction to snorkeling and free diving. Topics include how to handle the equipment and the physics involved in free diving. Takes basic snorkelers to an advanced level of knowledge, skills, and safety.
Terms Typically Offered: Fall, Spring.

KINA 180V Varsity Sport Participation 1 Credit
Participation in a varsity sport for credit. Course focuses on countable athletic-related activities, rules associated with sport, and maintenance of physical health.
Terms Typically Offered: Fall, Spring.

KINA 196 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

KINA 396 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Land Surveying (SURV)

Courses

SURV 100 Introduction to Surveying/Field Work 3 Credits
Introduction to the common surveying units, the theory of significant figures, the basic theory of errors, and the use of surveying field notes. Topics also include the instrumentation and methodologies of measuring the common surveying units, such as differences in elevation, distances, angles, bearings, and azimuths.
Prerequisites: MATH 113 or higher.
Corequisites: SURV 102.
Terms Typically Offered: Fall, Spring, Summer.
Fees: Yes.

SURV 102 Surveying Calculations I 4 Credits
Fundamental mathematical calculations and theories associated with measuring techniques taught in SURV 100 in order to calculate the horizontal and vertical relationship between points, lines, and areas based on plane geometry.
Prerequisites: MATH 113 or higher.
Corequisites: SURV 100.
Terms Typically Offered: Fall, Spring.

SURV 195 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

SURV 200 Advanced Surveying Field Work 3 Credits
Use of total station and robotic equipment, global positioning system (GPS) equipment, methods of construction staking, overall concepts of GPS, mapping surveys, mapping in general, photogrammetry, and an introduction to GIS.
Prerequisites: SURV 100 and SURV 102.
Corequisites: SURV 205.
Terms Typically Offered: Fall, Spring, Summer.

SURV 203 Legal Aspects of Surveying 3 Credits
Introduction to the concepts of boundary control and legal principles. Topics include rights in land, Public Land System of Surveys, metes and bounds surveys, proportionate measurement, junior/senior title rights, retracement of original surveys, deed first/survey first, common and case law, ranking/prioritizing evidence, controlling monuments and corners, errors in legal descriptions and plats, record research, and case studies.
Corequisites: SURV 204.
Terms Typically Offered: Fall, Spring.

SURV 204 Real Property Descriptions 2 Credits
Reading, writing, and interpreting property descriptions to be consistent with boundary law principles. Several areas of boundary law are reviewed, with an emphasis on the written legal documents that describe those properties.
Corequisites: SURV 203.
Terms Typically Offered: Fall, Spring.

SURV 205 Advanced Surveying Computations/Calculations 4 Credits
Review of horizontal curve concepts and calculations followed by advanced skills development. Topics include vertical curve calculations, volume calculations, an introduction to the concepts of least squares adjustments, an overview of astronomical observations, an introduction of control surveys and geodetic reductions, and an introduction of state plane coordinates and other map projections.
Prerequisites: SURV 100 and SURV 102.
Corequisites: SURV 200.
Terms Typically Offered: Fall, Spring.

SURV 206 Property Law - Boundary Evidence 3 Credits
Select topics of evidence and procedures for boundary location. Presents an introduction to the Public Land Survey System (Rectangular Survey System) of surveys used in the United States. Reviews Colorado Revised Statutes related to surveying and the Architects, Engineers, and Surveyor's Board Rules (AES Board Rules).
Prerequisites: SURV 203 and SURV 204.
Terms Typically Offered: Fall, Spring.

SURV 207 Surveying Ethics: An Overview of Ethical Expectations 2 Credits
Overview of the ethical standards of the Professional Land Surveyor and insight into the numerous ethical choices faced by the Professional Land Surveyor.
Terms Typically Offered: Fall, Spring, Summer.

SURV 298 Internship/Capstone Project 4 Credits
Demonstration of proficiency in the required surveying-specific knowledge to pass the Colorado exams through an internship and delivery of a capstone project on a mutually agreed upon topic.
Prerequisites: SURV 100, SURV 102, SURV 200, SURV 203, SURV 204, SURV 205, SURV 206, SURV 207, STAT 200, MATH 130, and one of the following: MATH 141, MATH 121, MATH 131, MATH 135, or MATH 151.
Terms Typically Offered: Fall, Spring, Summer.

Machining/Manufacturing (MAMT)

Courses

MAMT 101 Introduction to Manufacturing 2 Credits
Broad overview of the world of manufacturing. The course will include: people, materials, machines, design, organization, waste, quality, and other subjects which affect society and production of a product.
Terms Typically Offered: Fall, Spring.

MAMT 102 Machining Fundamentals 1 Credit
Concentrated unit dealing with speeds and feeds of machines, materials, tooling, tapping, boring, and manufacturing processes.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

MAMT 105 Print Reading and Sketching 2 Credits
Reading of blueprints and process sheets as used in industry and application of that information to various manufacturing processes.
Terms Typically Offered: Fall, Spring.

MAMT 106 Geometric Tolerancing 2 Credits
Identification, interpretation, and application of the blueprint symbols (referred to as Geometric Tolerancing symbols) in machining and inspection operations.
Prerequisites: MAMT 105 (may be taken concurrently).
Terms Typically Offered: Fall, Spring.

MAMT 115 Introduction to Machine Shop 3 Credits
Focus on safety procedures in machining, including: using bench tools, layout tools, power saws, and taps; sharpening general purpose drills; grinding lathe bits; and identifying and operating basic machines, such as the bench grinder, drill press, band saw, and others.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

MAMT 120 Machine Technology I 4 Credits
Focus on the operation of engine lathes, milling machines, and surface grinders.
Prerequisites: MAMT 115 (may be taken concurrently).
Terms Typically Offered: Fall.
Fees: Yes.

MAMT 125 Machine Technology II 4 Credits
Advancement of skills acquired in MAMT 115. Emphasis will be placed on technical aspects of tooling and machining tolerances.
Prerequisites: MAMT 115.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

MAMT 145 Machine Maintenance 2 Credits
Focus on maintaining, lubricating, and repairing machinery, including making gib adjustments, selecting and using proper lubricants, and selecting or manufacturing parts for making repairs, with emphasis on workmanship and inspection.
Terms Typically Offered: Spring.
Fees: Yes.

MAMT 148 CNC Applications 3 Credits
Introduction to Computer Numerical Control (CNC) programming basics, CAM software, and tooling used in today's manufacturing CNC milling machines and CNC lathes.
Prerequisites: MAMT 115.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

MAMT 170 Practical Applications 3 Credits
Development of a working knowledge in manufacturing through co-op, internship, work experience, or required lab work in industrial study, if outside work cannot be acquired.
Terms Typically Offered: Fall, Spring.

MAMT 196 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

MAMT 199 Internship 1-4 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

MAMT 207 Introduction to Statistical Process Control 2 Credits
Introduction to the philosophical and economic bases for statistical process control (SPC) and its use. Includes mathematical and non-mathematical SPC techniques, with emphasis on application.
Terms Typically Offered: Fall.

MAMT 230 Machine Technology III 4 Credits
Exploration of advanced machine operations, including: precision grinding, CNC vertical milling centers, and CNC lathes, with an emphasis on workmanship, accuracy, and quality control.
Prerequisites: MAMT 115.
Terms Typically Offered: Spring.
Fees: Yes.

MAMT 240 Job Shop Machining II 3 Credits
Comprehensive capstone course utilizing all the machine tools in the machining laboratory. Further development of writing process sheets, estimating machine time, and performing final inspections on finished projects. Development of prototypes and reverse-engineering concepts using CNC machine tools and 3D printers. Final design presentation and written report.
Fees: Yes.

MAMT 251 CNC Machining I 3 Credits
Exploration of computerized numerical control (CNC) machining operations, including control of functions, programming format, CNC machining setup, and operation.
Prerequisites: MAMT 148.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

MAMT 255 CNC Machining II 3 Credits
Further development of concepts introduced in MAMT 251. Emphasis on advanced operations of CNC machine tools.
Prerequisites: MAMT 251 (may be taken concurrently).
Terms Typically Offered: Fall, Spring.
Fees: Yes.

MAMT 260 Properties of Materials 3 Credits
Exploration of the processes of smelting and refining various types of metals. Discussions and demonstrations on heat-treatment, hardness testing, and molecular manipulation of metals.
Terms Typically Offered: Fall, Spring.

MAMT 295 Independent Study 1-4 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

MAMT 296 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Management (MANG)

Courses

MANG 121 Human Relations In Business 3 Credits
Human side of organizations: morale, motivation, human needs, minorities as working partners, leadership styles, organizational environment, and other human forces having an impact on business structures.

MANG 201 Principles of Management 3 Credits
Management as the process of achieving organizational goals or objectives by and through others. Emphasizes functions performed by managers and how they are influenced by forces both within and outside the organization. Managers' use of resources will be investigated.
Terms Typically Offered: Fall, Spring, Summer.

MANG 201A Principles of Management : Part 1 of 3 1 Credit
Introduction to the activities of management and decision making in the global environment, with an emphasis on leadership and managing change and innovation.

MANG 201B Principles of Management: Part 2 of 3 1 Credit
Introduction to management planning, goal setting, organizing, human resources, teams, and organizational behavior.

MANG 201C Principles of Management: Part 3 of 3 1 Credit
Introduction to management control, quality, the role of information technology, and electronic business.

MANG 221 Supervisory Concepts and Practices 3 Credits
For practicing or potential supervisors and managers who hold or will hold first-line to middle-level management positions. Focuses on the management functions of planning, organizing, staffing, directing, and controlling and their relation to the daily job of the supervisor.

MANG 242 Intro to The Point: Experiential Management I 3 Credits
Introduction to experiential management through operation of The Point, CMU's student run bar and pub. The class offers hands on experience applying the principles of developing/operating a functioning business. Students assist in tracking and analyzing records of a student-run business. Class combines application theory and practical experience to effect positive change. All students must work paid shifts in the business.
Terms Typically Offered: Fall, Spring.

MANG 296 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

MANG 299 Internship 3-6 Credits
Practical workplace experience under the joint supervision of the employer and the internship coordinator. Designed for business majors working in the business environment.
Prerequisites: ACCT 201 and BUGB 211.
Course may be taken multiple times up to maximum of 6 credit hours.

MANG 301 Organizational Behavior 3 Credits
Human behavior, its causes, and its effects in organizational settings.
Prerequisites: MANG 201.
Terms Typically Offered: Fall, Spring, Summer.

MANG 370 Leadership 3 Credits
Review of current leadership literature with an emphasis in application and skill building.
Prerequisites: MANG 201.
Equivalent Course(s): HRMA 373
Terms Typically Offered: Fall, Spring.

MANG 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

MANG 396 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

MANG 401 Strategic Consulting 3 Credits
Students are placed in the role of consultant for an area business furnishing management assistance to the small business community. Businesses benefit from the insight of student recommendations. Provides students practical training, supplementing academic theory by handling problems in a real business environment.
Prerequisites: Permission of instructor.

MANG 402 Advanced Problems in Small Business Operations II 6 Credits
Continuation of MANG 401.
Prerequisites: Permission of instructor. (Not necessary to complete MANG 401 before MANG 402.)

MANG 410 Effective Workplace Communication 3 Credits
Application of communication methods including: personal selling, negotiation, interviewing, and individual and group presentations. Emphasis placed upon application of effective practices used in communicating in today's business world.
Prerequisites: Junior or senior standing, or permission of instructor.

MANG 421 Credit and Collection Management 3 Credits
Consumer and commercial credit in relationship to the management of credit by business firms, legal aspects of credit extension, and current legislation. Information on credit operations of business for both students of business and practicing businessmen.
Prerequisites: ACCT 202, MANG 201 or permission of instructor.

MANG 442 Experiential Management: Student Run Business 3 Credits
Principles of developing/operating a functioning business. Track and analyze records of a student-run business. Analyze data, apply theory and practical experience to effect positive change. Work with CMU administration and government regulators to assure rules and regulations followed.
Prerequisites: Permission of instructor.

MANG 451 Career Research and Development 3 Credits
Principles and techniques involved in a job search with emphasis on conducting career research, identification of goals, preparing a job campaign, and elements of a job interview. Preparation of a job kit including a prospect list, resume, cover letter, advertisements, prospect letters, and sales and follow-up letters which can be used in a job search.
Prerequisites: Senior standing or permission of instructor.

MANG 471 Operations Management 3 Credits
The use of resources in producing goods and services; concepts of planning, scheduling, and controlling productive activities and physical resources.
Prerequisites: FINA 301 and senior standing.

MANG 491 Business Strategy 3 Credits
Duties and responsibilities of decision makers in analyzing the organization, its operating environment and the subsequent development of objectives, policies, and long term planning for organizations. Includes complex cases taken from actual experiences in situations involving analysis, planning, and decision making.
Prerequisites: ACCT 201, ACCT 202, BUGB 231, FINA 301, MANG 201, MARK 231, and senior standing.
Terms Typically Offered: Fall, Spring.

MANG 495 Independent Study 1-4 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

MANG 496 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

MANG 499 Internship 1-9 Credits
Provides BBA students with an opportunity to learn more about management functions and activities through exposure to an actual business or agency environment. Observation and participation in management activities enable students to relate classroom theory to on-the-job experiences.
Prerequisites: BBA major, second semester junior or senior, written permission of instructor prior to registration.
Course may be taken multiple times up to maximum of 15 credit hours.

MANG 500 Advanced Management Theory 3 Credits
Designed to advance the student's understanding of management theories and the application of these theories to the business world. Contemporary issues will be discussed.

MANG 501 Operations Management 3 Credits
Competitive strategies and strategic impact of the transformation process in a global economy. Operations management issues, including quality, inventory management, management of technology, manufacturing planning and control, just-in-time manufacturing, and optimized production technology. Impact of business system on productivity and profits.
Prerequisites: CISB 501, ECON 530, and FINA 500.
Terms Typically Offered: Fall.

MANG 510 Leading Organizations 3 Credits
Designed to encourage the application of diverse conceptual and theoretical perspectives to the analysis and control of behavior in organizations. Practice in diagnosing organizational problems is gained by combining the use of theories, texts, readings, cases and exercise. The course focuses on problems related to perception, motivation, leadership, cultural diversity, interpersonal and group conflict, stress, work-family conflict, influence, decision-making, ethics, international management issues and change.

MANG 540 Advanced Quantitative Methods 3 Credits
Analytical models to support decision making. Topics include linear optimization, sensitivity analysis, linear regression, decision making under uncertainty, decision making under risk, project management, transportation and assignment methods, and forecasting.

MANG 590 Business Strategy 3 Credits
The capstone course in the MBA program. The purpose of this course is to develop an understanding of strategic management and the "how" and "why" of strategic decisions. Emphasis is also placed on how the manager goes about translating strategy into action and achieves integration in the organization. Integration involves the functional areas of management and how to balance the trade-offs from the perspective of strategic decision making at the top management level.
Prerequisites: Permission of instructor.

Marketing (MARK)

Courses

MARK 231 Principles of Marketing 3 Credits
Use and development of marketing strategy and the effects of buyer motivation. Major functions of marketing, buying, selling, distribution, pricing, advertising, and storage are studied. A contrast is made between the two marketing institutions: wholesaling and retailing.

MARK 325 Consumer Behavior 3 Credits
Overview of the processes involved when individuals or groups select, purchase, use or dispose of products and services to satisfy needs and desires.
Prerequisites: MARK 231.

MARK 332 Promotion 3 Credits
Overview of the many ways in which goods, services, and ideas can be promoted to consumers and businesses through advertising, public relations, and publicity.
Prerequisites: MARK 231.

MARK 335 Sales and Sales Management 3 Credits
The salesperson as a counselor whose role is to help buyers make better decisions. Professional salesmanship is recognized as an integral function in modern society, with basic sales techniques studied and practiced in sales presentations. The course is taught from a management perspective.
Prerequisites: MARK 231.

MARK 340 Creating Marketing Materials 3 Credits
Overview and process development for creating marketing materials for all supply chain stakeholders. Development and analysis of multi-faceted levels of business marketing.
Prerequisites: MARK 231.

MARK 350 Marketing Research 3 Credits
Marketing research theory and techniques designed to educate the student in the use of the scientific method, development of analytical ability, presentation of basic marketing research tools, and proficiency in the art of writing research reports. Includes cases and actual research projects.
Prerequisites: CISB 241 or STAT 241; and MARK 231.
Terms Typically Offered: Fall, Spring.

MARK 360 Services Marketing 3 Credits
Application of marketing concepts and strategies for addressing marketing problems and opportunities in the service sector (Finance, Hospitality, and Healthcare).
Prerequisites: MARK 231, MARK 350, or permission of instructor. Course will utilize case problems and an actual research project.

MARK 375 Digital Marketing 3 Credits
Examination of digital marketing strategy through various digital channels and platforms. The course provides students with knowledge on how to develop an integrated digital marketing strategy, including formulation, implementation, and evaluation.
Prerequisites: MARK 231.
Terms Typically Offered: Fall, Spring.

MARK 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

MARK 396 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

MARK 402 Sport Marketing 3 Credits
The application of the principles of promotion and marketing to the sport and fitness industry including the areas of professional sports, corporate fitness, college/high school athletics, clubs and resorts, and others.
Prerequisites: MARK 231.

MARK 432 Advanced Marketing 3 Credits
In-depth complex marketing problems confronting modern businesses. Development of marketing strategy to allow a firm to progress toward its corporate objectives.
Prerequisites: CISB 241 or STAT 241; and MARK 231.
Terms Typically Offered: Fall, Spring.

MARK 495 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

MARK 496 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

MARK 500 Marketing Strategy 3 Credits
Examines the state-of-the-art in marketing strategy from both a practical and theoretical perspective. Focusing on integrating a broad range of marketing concepts, the emphasis is on setting realistic marketing objectives, understanding marketing research concepts, demographic market segmentation, and current marketing topics.

Mass Communications (MASS)

Courses

MASS 110 Mass Media: Impact and History-GTAH2 3 Credits
Investigation of the role played by media in everyday life and media's social, economic, and historical influence on society.
Essential Learning Categories: Humanities
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring, Summer.

MASS 140 Media Theory Introduction 3 Credits
Introduction to theories of Mass Communication. Exploration of theory constructs, audience research, effects of emerging media and technologies, and message content.
Prerequisites: MASS 110.
Terms Typically Offered: Fall, Spring.

MASS 144 Multimedia Storytelling 3 Credits
Journalism-based techniques and methods for modern storytelling of accurately written information through the use of the internet, video, and audio.
Prerequisites: MASS 110.
Terms Typically Offered: Fall, Spring.

MASS 196 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

MASS 213 Introduction to Media Writing and Reporting 3 Credits
Fundamentals of news gathering and reporting through a variety of media. Exploration of ethical and legal aspects of journalistic endeavors.
Prerequisites: MASS 140.
Terms Typically Offered: Fall, Spring.

MASS 251 Mass Media: Advertising and Promotions 3 Credits
Principles of media advertising and promotions. Considers research, analysis, strategy, advertising barriers, design, and perspective.
Terms Typically Offered: Fall.

MASS 261 Audio Announcing and Production 3 Credits
Exploration of the art and science of announcing for media and the importance and use of the spoken word in persuasive messages. Creation and execution of programs and formats for audio source distribution both traditional and emerging.
Prerequisites: MASS 140.
Terms Typically Offered: Fall.

MASS 271 Video Production 3 Credits
Fundamentals of electronic field production and non-linear editing with hands-on experience with broadcast-quality equipment. Creation and execution of productions involving videography, scripting, graphic layout, and editing.
Terms Typically Offered: Fall, Spring.

MASS 296 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

MASS 310 Media Law and Ethics 3 Credits
Ethical principles and laws affecting media. Includes study and application of ethics and laws involved in print, broadcasting, and emerging media.
Prerequisites: MASS 213.
Terms Typically Offered: Fall, Spring.

MASS 313 Broadcast Journalism Reporting 3 Credits
Introduction to broadcast writing styles and history. Specific applications for radio, television, and internet. Emphasis on formatting, newsgathering, interviewing, and researching.
Prerequisites: MASS 213.
Terms Typically Offered: Spring.

MASS 315A Specialized Writing for Media: Science 3 Credits
Specialized writing about science for various media platforms.
Prerequisites: MASS 213.

MASS 315B Specialized Writing for Media: Sports 3 Credits
Specialized writing about sports for various media platforms.
Prerequisites: MASS 213.

MASS 315C Specialized Writing for Media: Health 3 Credits
Specialized writing about health for various media platforms.
Prerequisites: MASS 213.

MASS 315D Specialized Writing for Media: Crime 3 Credits
Specialized writing about crime for various media platforms.
Prerequisites: MASS 213.

MASS 315E Specialized Writing for Media: Arts Journalism 3 Credits
Specialized writing about the arts for various media platforms. Subjects include: theory and creation of art critiques, fluency in a broad range of arts journalism contexts, and the law and ethics of arts journalism.
Prerequisites: MASS 213.
Terms Typically Offered: Fall.

MASS 317 Writing Opinion for Impact 3 Credits
Persuasive and insightful writing. Subjects include public issues, supporting beliefs, analysis, and documentation for targeted audiences through broadcast, print, and internet/web.
Prerequisites: MASS 213.
Terms Typically Offered: Fall.

MASS 342 Photojournalism I 3 Credits
Fundamentals of camera techniques, qualities of print and digital images, history and ethics of photojournalism, uses of software in image acquisition and use, and development of esthetic values.
Terms Typically Offered: Fall.

MASS 350 Public Relations Concepts 3 Credits
Historical and theoretical approach to contemporary public relations with emphasis on the persuasion process and ethics, propaganda, and advertising techniques in mass media.
Prerequisites: MASS 213.

MASS 352 Print Design and Production for Editors 3 Credits
Various essential processes and duties editors face in preparing articles, graphics, and photos for print publication - including digital design and pre-press, typography, press-ready PDFs, CMYK offset printing, writing headlines and cutlines, and meeting all expectations in the printed final product. Adobe InDesign also is introduced and utilized.
Prerequisites: MASS 213.

MASS 357 Documentary and News Producing 3 Credits
Creation of multimedia content for students to develop their skills as producers, researchers, interviewers, writers, and videographers, as well as on-camera and voice talent. The focus of study will be on analyzing and practicing the aesthetic and technical elements of documentary and news content in order to create original stories for broadcast, print, and web.
Prerequisites: MASS 271.
Terms Typically Offered: Spring.

MASS 372 TV Studio Production 3 Credits
Combination of multi-camera studio and electronic field productions. Includes videography, live-editing, non-linear editing, graphic creation, audio manipulation, and script writing, culminating in broadcast-quality programming.
Terms Typically Offered: Fall.

MASS 387 Structured Research 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

MASS 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

MASS 396 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

MASS 397 Practicum 1 Credit
Practical experience with student media outlets under faculty advisor supervision or with CMU Sports Information. Practicum coordinator must be consulted in first week of term.
Prerequisites: MASS 140 and MASS 144 or permission of instructor.
Course may be taken multiple times up to maximum of 10 credit hours.

MASS 415 Advanced Media Writing and Reporting 3 Credits
In-depth journalism writing and reporting course. Focuses on the development of long-form journalism pieces, including magazine features, public affairs reporting, news analysis, and news investigations using public records and interviews. Emphasis on fair and accurate reporting and writing under deadline, with critical attention paid to law and ethics.
Prerequisites: MASS 213.
Terms Typically Offered: Spring.

MASS 417 Writing for Public Relations and Advertising 3 Credits
Copywriting function in public relations and advertising for organizations and agencies.
Prerequisites: MASS 213.
Terms Typically Offered: Spring.

MASS 441 Emerging Media 3 Credits
Experimentation with tools, techniques, and concepts of social and new media resulting in the creation of online content.
Terms Typically Offered: Fall, Spring.

MASS 442 Photojournalism II 3 Credits
Advanced skills to capture and edit images to high aesthetic values, professionalism, news photography, photo illustration, creation of image portfolios for public display or potential employers, and use of image management software.
Prerequisites: MASS 342.
Terms Typically Offered: Spring.

MASS 450 Public Relations Campaigns 3 Credits
Survey of campaigns and case histories representing the scope of public relations (PR), research methodology, and audience targeting. Practical application of PR theory.
Prerequisites: MASS 213.
Terms Typically Offered: Spring.

MASS 452 Designing for Brand and Message 3 Credits
Publication of attractive and effective content. Includes designing print materials, such as company newsletters, logos, brochures, magazines, as well as electronic publishing.
Terms Typically Offered: Spring.

MASS 471 Advanced Video Production 3 Credits
Aesthetic values of electronic field productions and post-production projects. Builds upon concepts and skills acquired in MASS 271 to create and execute high quality video and creative productions for air and/or web use.
Prerequisites: MASS 271.
Terms Typically Offered: Spring.

MASS 493 Senior Project Portfolio 1 Credit
Identification and preparation of projects that highlight mass communication skills, abilities, talents, and applications.
Prerequisites: MASS 213 and MASS 397.
Terms Typically Offered: Fall, Spring.

MASS 494 Seminar: Advanced Theory and Research 3 Credits
Capstone course. Examination and exploration of mass communication theories. Focus on research and its importance to media disciplines and industries.
Prerequisites: MASS 213.
Terms Typically Offered: Fall, Spring.

MASS 495 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

MASS 496 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

MASS 497 Practicum 1 Credit
Practical experience with student media outlets under faculty advisor supervision or with CMU Sports Information. Practicum coordinator must be consulted in first week of term.
Prerequisites: MASS 397 or permission of instructor.
Course may be taken 10 times for credit.

MASS 499 Internship 1-12 Credits
Work in media industry positions.
Prerequisites: MASS 213, MASS 310, and at least junior standing with at least half of major requirements completed.
Course may be taken multiple times up to maximum of 15 credit hours.

Math - Foundations (MATC)

Courses

MATC 090 Foundations of Math 2 Credits
Development of mathematical thinking skills, basic algebraic skills, as well as everyday life math skills. Mathematical literacy concepts and skills are developed through practical applications. Technology and calculator usage are integrated into the course.
Terms Typically Offered: Fall, Spring, Summer.

MATC 092 Foundations of Algebra 4 Credits
Foundations of algebra with a review of basic arithmetic. Includes decimals, fractions, percentages, ratios, proportions, signed numbers, algebraic expressions, factoring, exponents and radicals, linear equations, functions and graphs. Also includes properties of real and complex numbers, laws of exponents and radicals, factoring polynomials, solving linear and quadratic equations and inequalities, rational expressions, complex fractions, functions, and relations.
Prerequisites: Appropriate math placement test score.
Terms Typically Offered: Fall, Spring, Summer.

MATC 096 Topics: 1-4 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Mathematics (MATH)

Courses

MATH 101 Review in Mathematics 1 Credit
Review of mathematical concepts and computations. Content will vary, but topics will be chosen in each case to prepare students for a specific subsequent course.
Terms Typically Offered: Fall.

MATH 105 Elements of Mathematics I 3 Credits
Mathematics for the prospective elementary teacher with an emphasis on mathematical reasoning and processes. Topics include problem solving, set theory, number theory, numeration systems, the integers, and rational numbers.
Prerequisites: Appropriate placement test score and a planned major in elementary education or early childhood special education.
Terms Typically Offered: Fall, Spring.

MATH 107 Career Math 3 Credits
Covers material designed for career technical or general studies students who need to study particular mathematical topics. Topics include measurement, algebra, geometry, trigonometry, graphs, and/or finance. These are presented on an introductory level and the emphasis is on applications.

MATH 108 Technical Mathematics 4 Credits
Covers material designed for career technical or general studies students who need to study particular mathematical topics. Topics may include measurement, algebra, geometry, trigonometry, graphs, and/or finance. These are presented on an introductory level and the emphasis is on applications.

MATH 110 Mathematical Investigations-GTMA1 3 Credits
Investigations into mathematical concepts approached through the lens of real-world applications and projects. Specific content includes problem solving, mathematical models, financial mathematics, set theory, logic, probability, descriptive statistics, and the appropriate use of technology.
Prerequisites: MATC 090 or equivalent or appropriate mathematics placement test score.
Essential Learning Categories: Mathematics See the program requirements list to determine the minimum level math needed
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring, Summer.

MATH 110L Mathematical Investigations Support 1 Credit
Support for students enrolled in MATH 110: Mathematical Investigations. Topics include prerequisite skills, requisite skills, and organizational skills. Support will focus on strengthening mathematical reasoning and essential skills needed for success in Mathematical Investigations.
Prerequisites: Appropriate mathematics placement test score.
Corequisites: MATH 110.
Terms Typically Offered: Fall, Spring.

MATH 113 College Algebra-GTMA1 4 Credits
Approach to algebra with an emphasis on functions, modeling, and applications. Topics include properties and graphs of linear, polynomial, rational, exponential, logarithmic, and inverse functions; solving equations, inequalities and systems of linear equations; interpreting data and graphs. Technology tools will be utilized in addition to analytical methods.
Prerequisites: MATC 092 or equivalent, or appropriate mathematics placement test score.
Equivalent Course(s): MATH 113R
Essential Learning Categories: Mathematics See the program requirements list to determine the minimum level math needed
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring, Summer.

MATH 113R College Algebra with Review-GTMA1 5 Credits
Approach to algebra with an emphasis on functions, modeling, and applications. Topics include properties and graphs of linear, polynomial, rational, exponential, logarithmic, and inverse functions; solving equations, inequalities and systems of linear equations; interpreting data and graphs. Technology tools will be utilized in addition to analytical methods. Review and practice of necessary skills and concepts will be incorporated throughout.
Prerequisites: Appropriate mathematics placement test score and GPA, or MATC 092.
Equivalent Course(s): MATH 113
Essential Learning Categories: Mathematics See the program requirements list to determine the minimum level math needed
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

MATH 114 Trigonometry and Analytic Geometry 3 Credits
College-level treatment of trigonometry and analytic geometry, with an emphasis on applications. Topics include Cartesian and polar coordinate systems; unit circle and right triangle approaches to trigonometric functions; properties and graphs of trigonometric and inverse trigonometric functions; vectors in two and three dimensions; dot product and cross product; and equations of lines and planes.
Prerequisites: MATH 113 or appropriate mathematics placement test score.
Terms Typically Offered: Fall, Spring.

MATH 119 Precalculus Mathematics-GTMA1 5 Credits
In-depth treatment of the mathematics essential to Calculus. Topics include linear, polynomial, rational, exponential, logarithmic, inverse, and trigonometric functions.
Prerequisites: Appropriate mathematics placement test score.
Essential Learning Categories: Mathematics See the program requirements list to determine the minimum level math needed
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring, Summer.

MATH 119A Algebra for Calculus-GTMA1 4 Credits
In-depth treatment of the algebra essential to Calculus. Topics include the algebraic and graphical properties of linear, polynomial, rational, exponential, logarithmic, and inverse functions. This course is the first course in a two-semester sequence (MATH 119A/MATH 119B) equivalent to MATH 119.
Prerequisites: Appropriate mathematics placement test score.
Essential Learning Categories: Mathematics See the program requirements list to determine the minimum level math needed
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring, Summer.

MATH 119B Trigonometry for Calculus-GTMA1 3 Credits
In-depth treatment of the trigonometry essential to Calculus, incorporating a selection of algebraic concepts. This is the second course in a two-semester sequence (MATH 119A/MATH 119B) equivalent to MATH 119.
Prerequisites: MATH 119A.
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring, Summer.

MATH 121 Calculus for Business 3 Credits
Introduction to calculus with an emphasis on applications to business and economics. Topics include linear and quadratic functions, limits, continuity, differentiation, integration, the logarithmic and exponential functions, and applications.
Prerequisites: MATH 113 or appropriate placement test score.
Terms Typically Offered: Fall.

MATH 130 Trigonometry 3 Credits
College-level treatment of trigonometry. Topics include the Cartesian plane, functions, inverse functions, the circular function, trigonometric functions, graphs of trigonometric functions, trigonometric identities, solving trigonometric equations, inverse trigonometric functions, triangle solution techniques, and vectors.
Prerequisites: MATH 113 or appropriate mathematics placement test score.
Terms Typically Offered: Fall, Spring.

MATH 131 Applied Calculus-GTMA1 4 Credits
Introduction to fundamental concepts and techniques of calculus, with an emphasis on modeling and applications. Topics include algebraic, periodic, exponential, and logarithmic functions and their graphs; notions of limits, continuity, rates of change, and accumulated change; differentiation; and integration.
Prerequisites: MATH 113 or appropriate placement test score.
Essential Learning Categories: Mathematics See the program requirements list to determine the minimum level math needed
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Spring.

MATH 135 Engineering Calculus I 4 Credits
Introduction to differentiation and integration of functions of a single variable. Emphasis on computational aspects. Includes functions, limits, continuity, differentiation, related rates, optimization, graphing, integration, and volumes.
Prerequisites: MATH 119, or MATH 119A and MATH 119B, or appropriate mathematics placement score.
Terms Typically Offered: Fall, Spring, Summer.

MATH 136 Engineering Calculus II 4 Credits
Continuation of MATH 135 Engineering Calculus I. Emphasis on computational aspects. Includes techniques of integration; trigonometric and hyperbolic functions; inverse, logarithmic, and exponential functions; sequences and series; polar coordinates; and parametric equations.
Prerequisites: MATH 135 or MATH 151.
Terms Typically Offered: Fall, Spring.

MATH 141 Analytical Geometry 3 Credits
College-level treatment of analytic geometry. Topics include the Cartesian coordinate system in two and three dimensions; distance; parallel and perpendicular lines and planes; the locus of a condition; generalizations of lines, circles, and parabolas; polar coordinates; and vectors in two and three dimensions.
Prerequisites: MATH 130.
Terms Typically Offered: Fall.

MATH 150 Topics and Careers in Mathematics 1 Credit
Introduction to the nature of mathematical thinking. Advanced topics and applications of mathematics and statistics will be presented at an introductory level. Career options will be investigated.
Prerequisites: MATH 151 or MATH 135 or MATH 131 (any of these courses may be taken concurrently with MATH 150).
Terms Typically Offered: Fall, Spring.

MATH 151 Calculus I-GTMA1 5 Credits
Introduction to differentiation and integration of functions of a single variable. Topics include functions, limits, continuity, differentiation, related rates, optimization, graphing, integration, and volumes.
Prerequisites: MATH 119, or MATH 119A and MATH 119B, or appropriate mathematics placement test score.
Essential Learning Categories: Mathematics See the program requirements list to determine the minimum level math needed
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring, Summer.

MATH 152 Calculus II 5 Credits
Continuation of MATH 151 Calculus I. Topics include techniques of integration; trigonometric and hyperbolic functions; inverse, logarithmic, and exponential functions; sequences and series; polar coordinates; and parametric equations.
Prerequisites: MATH 151.
Terms Typically Offered: Fall, Spring.

MATH 196 Topics 1-5 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

MATH 205 Elements of Mathematics II-GTMA1 3 Credits
Continuation of MATH 105 designed for the prospective elementary teacher. Topics include algebraic methods, measurement, decimal numbers, statistics, geometry, and the metric system.
Prerequisites: MATH 105 and a planned major in elementary education or early childhood special education.
Essential Learning Categories: Mathematics See the program requirements list to determine the minimum level math needed
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

MATH 215 Technology for Mathematics Educators 3 Credits
Introduction to technology resources appropriate for mathematics educators. Focus is on using spreadsheets to program problem-solving algorithms, mathematical models, and data manipulation. Additional technologies and topics include interactive geometry software, interactive applets, simple webpage design, block-based languages, and educational simulations and games.
Prerequisites: MATH 113 and MATH 205.
Terms Typically Offered: Spring.

MATH 225 Computational Linear Algebra 3 Credits
Computational approach to systems of equations, vector spaces, matrices, matrix transformations, subspaces of R^n, eigenvalues, as well as their applications. Software for linear algebra computations is introduced and utilized.
Prerequisites: MATH 151 or MATH 135 or MATH 131.
Terms Typically Offered: Spring.

MATH 236 Differential Equations and Linear Algebra 4 Credits
Introduction to ordinary differential equations and linear algebra. Topics covered include ordinary differential equations, systems of linear equations, matrices, determinants, vector spaces, and systems of linear differential equations.
Prerequisites: MATH 152 or MATH 136.
Terms Typically Offered: Fall, Spring.

MATH 240 Introduction to Advanced Mathematics 4 Credits
Introduction to writing mathematical proofs that provides students with a transition from computation-based lower-level courses to proof-based upper-level courses. Topics include introductory logic, set theory, relations, functions, induction, equivalence relations, and partitions. Emphasis is on constructing and analyzing rigorous mathematical proofs.
Prerequisites: MATH 152.
Terms Typically Offered: Fall, Spring.

MATH 253 Calculus III 4 Credits
Introduction to multivariable calculus. Topics include three-dimensional space, vectors, functions of several variables, partial derivatives, directional derivatives, multiple integrals, vector fields, and the integral theorems of vector calculus.
Prerequisites: MATH 136 or MATH 152.
Terms Typically Offered: Fall, Spring.

MATH 260 Differential Equations 3 Credits
Techniques of solving first and second order differential equations, linear differential equations, and non-homogeneous differential equations, including variation of parameters, series solutions, and Laplace transform methods.
Prerequisites: MATH 152 or MATH 136.
Terms Typically Offered: Spring.

MATH 296 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

MATH 301 Mathematics for Elementary Teachers 3 Credits
Selection of mathematics topics addressing content and standards for elementary education, including problem solving, probability, mathematical standards and current research, technology, and additional review topics. Strong emphasis on written and oral communication.
Prerequisites: MATH 205; and formal acceptance into the Teacher Education Program or consent of the instructor.
Terms Typically Offered: Fall, Spring.

MATH 305 Discovering Geometry 3 Credits
Development of Euclidean Geometry through exploration and inductive reasoning. Basic concepts of proofs are introduced. Topics include angles and shapes; constructions; perimeter, area, and volume; congruence and similarity conditions; symmetry and tessellations; and applications of technology. Intended for students seeking elementary teacher licensure.
Prerequisites: MATH 301.
Terms Typically Offered: Fall.

MATH 310 Number Theory 3 Credits
Introduction to classical number theory. Topics include the Fundamental Theorem of Arithmetic, congruences, and linear Diophantine equations.
Prerequisites: MATH 240.
Terms Typically Offered: Fall.

MATH 325 Linear Algebra 3 Credits
Proof-based treatment of linear algebra. Topics include vector spaces, linear transformations, eigenvalues, and orthogonality.
Prerequisites: MATH 225 and MATH 240.
Terms Typically Offered: Fall.

MATH 340 Ethnomathematics 3 Credits
Study of the relationship between mathematics and culture, with an emphasis on small-scale indigenous cultures. Topics include mathematics systems, their logical structures, and their modes of expression through the lens of culture.
Prerequisites: MATH 240 or MATH 301.
Terms Typically Offered: Fall.

MATH 352 Advanced Calculus 3 Credits
Proof-based treatment of calculus of one real variable, with focus on axiomatic development. Topics include completeness of the real numbers, limits, continuity, derivatives, integrals, and the Fundamental Theorem of Calculus.
Prerequisites: MATH 240.
Terms Typically Offered: Spring.

MATH 360 Methods of Applied Mathematics 3 Credits
Introduction to methods of applied analysis and mathematical physics. Topics include vector calculus, Sturm-Liouville problems, Fourier series, partial differential equations, series solutions of ordinary differential equations, and special functions.
Prerequisites: MATH 253, and MATH 236 or MATH 260.
Terms Typically Offered: Fall.

MATH 361 Numerical Analysis 4 Credits
Introduction to the study of accuracy and efficiency of algorithms and numerical computation. Topics include computer representation of numbers, finite precision arithmetic, truncating errors, iteration processes, numerical solutions of algebraic and transcendental equations, systems of linear equations, Taylor polynomial approximation, interpolation, finite differences, numerical integration, and error analysis.
Prerequisites: MATH 152 or MATH 136.
Terms Typically Offered: Fall.

MATH 362 Fourier Analysis 3 Credits
Introduction to continuous and discrete Fourier analysis. Topics include representation of signals as vectors, matrices, and functions; orthogonal expansions; Fourier series and frequency analysis; thresholding and compression; Fourier and inverse Fourier transforms; discrete and inverse discrete Fourier transforms; and cosine transforms.
Prerequisites: MATH 152 or MATH 136.
Terms Typically Offered: Fall.

MATH 365 Mathematical Modeling 3 Credits
Bridge between calculus and the application of mathematics. Investigation of meaningful and practical problems encompassing the disciplines of mathematical sciences, operations research, engineering, management sciences and life sciences.
Prerequisites: MATH 136 or MATH 152, and one of the following: MATH 225, MATH 236, MATH 240, MATH 253, MATH 260, or STAT 200.
Terms Typically Offered: Spring.

MATH 366 Methods of Applied Mathematics II 3 Credits
Treatment of numerical methods used to solve problems in applied mathematics. Topics include iteration; interpolation and cubic splines; numerical integration and differentiation; numerical linear algebra; and numerical solutions of ordinary and partial differential equations.
Prerequisites: MATH 360; and CSCI 110/CSCI 110L or CSCI 111 or CSCI 130 or CSCI 310.
Terms Typically Offered: Spring.

MATH 369 Discrete Structures I 3 Credits
Introduction to discrete mathematics. Topics include elementary logic, set theory, number theory, public-key cryptography, complexity of algorithms, induction and recursion, combinatorics, relations, and graphs.
Prerequisites: MATH 152 or MATH 136; and CSCI 110/CSCI 110L or CSCI 111 or CSCI 130.
Terms Typically Offered: Fall, Spring.

MATH 380 History of Mathematics 3 Credits
History of mathematics from antiquity to the present, with emphasis upon the development of mathematics concepts and the people involved.
Prerequisites: MATH 152.
Terms Typically Offered: Fall.

MATH 386 Geometries 4 Credits
Study of Euclidean and non-Euclidean geometries. This course distinguishes Euclidean and non-Euclidean geometries according to their axiom systems and their models, and examines how notions in Euclidean geometry are interpreted in non-Euclidean systems. Topics include axiomatic systems, parallelism, area, congruence, similarity, transformations, and symmetry.
Prerequisites: MATH 240.
Terms Typically Offered: Spring.

MATH 389 Explorations in Mathematics for Elementary Educators 2 Credits
Exploration of diverse topics and fields of mathematics to broaden the perspectives of future elementary educators. Exposure to and a deeper understanding of a wide variety of topics will be established through directed readings, explorations, and discussions.
Prerequisites: MATH 301.
Terms Typically Offered: Spring.

MATH 394P Problem Solving Seminar 1 Credit
Approaches to problem solving in mathematics. Topics include a variety of problem-solving techniques and strategies, with a focus on how they can be applied to problems that come generally from mathematics competitions.
Prerequisites: MATH 151.
Terms Typically Offered: Fall.
Course may be taken 4 times for credit.

MATH 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

MATH 396 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

MATH 397 Structured Research 1-4 Credits
Mathematical research under the direct guidance of a faculty member. Designed for junior and senior level students.
Prerequisites: Permission of instructor.
Course may be taken multiple times up to maximum of 12 credit hours.

MATH 420 Introduction to Topology 3 Credits
Introduction to point set topology. Topics include topological spaces, continuity, metric spaces, connectedness, compactness, and the separation axioms.
Prerequisites: MATH 310 or MATH 325 or MATH 352.
Terms Typically Offered: Spring.

MATH 427 Financial Mathematics 3 Credits
Exploration of mathematical models for applications in finance. Topics include simple and compound interest, present and accumulated values, annuities, bonds, yield rates, sinking funds, equations of value, amortization, depreciation, life insurance pricing, and premium and reserve calculations. Particular focus is given to problems related to and preparation for the Society of Actuaries Financial Mathematics exam.
Prerequisites: MATH 152.
Terms Typically Offered: Spring.

MATH 430 Mathematical Logic 3 Credits
Introduction to the classical areas of mathematical logic (model theory, proof theory, the theory of computation, complexity theory, and set theory) and the relationships these sub-disciplines have with each other and with the foundations of mathematics, computational science, computer science, and the philosophy of mathematics.
Prerequisites: MATH 240 or MATH 369.
Terms Typically Offered: Fall.

MATH 450 Complex Variables 3 Credits
Introduction to complex analysis. Topics include the algebra of complex numbers; elementary functions of a complex variable; analyticity; differentiation and integration of complex functions; Cauchy's Integral Formula; and series representations of analytic functions.
Prerequisites: MATH 240.
Terms Typically Offered: Fall.

MATH 452 Introduction to Real Analysis I 3 Credits
Introduction to real analysis from a general metric space perspective. Topics may include: point set topology, completeness, compactness, connected sets, sequences, limits of functions, continuity, differentiation, integration, and sequences of functions.
Prerequisites: MATH 352.
Terms Typically Offered: Fall.

MATH 453 Introduction to Real Analysis II 3 Credits
Exploration of advanced topics in real analysis. Specific topics are determined by the instructor and may include differentiation and integration of functions of multiple variables; inverse and implicit function theorems; dynamical systems and chaos; and Banach and Hilbert spaces.
Prerequisites: MATH 452.
Terms Typically Offered: Spring.

MATH 460 Advanced Linear Algebra 3 Credits
Exploration of advanced topics in linear algebra. Specific topics are determined by the instructor and may include characteristic and minimal polynomials, the Cayley-Hamilton Theorem, the Jordan canonical form, quotient spaces, and dual vector spaces.
Prerequisites: MATH 325.
Terms Typically Offered: Spring.

MATH 466 Methods of Applied Mathematics III 3 Credits
Exploration of advanced methods of applied mathematics, with an emphasis on extending basic methods and concepts, including modeling applied problems, determining analytical solutions, and implementing numerical methods. Specific content may vary but will typically include contemporary techniques in applied mathematics.
Prerequisites: MATH 366.
Terms Typically Offered: Fall.

MATH 490 Abstract Algebra I 3 Credits
Introduction to the theory of algebraic structures. Topics include groups, subgroups, cyclic groups, groups of permutations, homomorphisms, isomorphisms, the order of group elements, cosets, quotient structures, isomorphism theorems, and an introduction to rings and fields.
Prerequisites: MATH 310.
Terms Typically Offered: Spring.

MATH 491 Abstract Algebra II 3 Credits
Continuation of MATH 490 Abstract Algebra I, focusing on rings and fields. Topics include rings, ideals, quotient structures, ring homomorphisms, integral domains, polynomial rings, fields, field extensions, finite fields, and Galois Theory.
Prerequisites: MATH 490.
Terms Typically Offered: Fall.

MATH 492 Senior Capstone 3 Credits
Exploration and communication of mathematical ideas and problems relevant to individual mathematics concentrations by integrating and extending material covered in mathematics coursework. Investigations may also include placing mathematics in historical, applied, professional, and social contexts.
Prerequisites: Senior standing.
Terms Typically Offered: Fall.

MATH 495 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

MATH 496 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

MATH 500 Introduction to Graduate Studies in Applied Mathematics 3 Credits
Introduction to methods and concepts of applied mathematics, including differentiation and integration of single and multivariate functions, vector calculus methods, matrix-vector computations, vector space concepts, and mathematical proofs.
Prerequisites: Acceptance into the Graduate Certificate in Applied Mathematics program.

MATH 510 Applied Probability and Statistics 3 Credits
Develop a comprehension of, and an ability to perform, statistical methods that are most common in educational research. Emphases on statistical concepts that will further prepare teachers to teach introductory-level college statistics and critically examine and comprehend the data analysis in educational literature. Graphing calculators and computer software may be used to analyze and display data.
Prerequisites: Acceptance into the Graduate Certificate in Applied Mathematics program.

MATH 520 Applied Numerical Methods 3 Credits
Exploration of fundamental algorithms and analysis of numerical methods commonly used by scientists, engineers, and mathematicians to approximately solve mathematical problems that are analytically impossible or intractable.
Prerequisites: MATH 500.

MATH 530 Applied Mathematical Modeling 3 Credits
Investigation of applications of mathematics in the natural and social sciences, involving continuous, discrete, and probabilistic models. Survey of historical applications of mathematics in fields including chemistry, engineering, finance, ecology, and management; and creation of new models to address current questions in these fields. Involves model creation and model selection, analytical and computational methods of solving a model, and presentation of original work in a seminar setting.
Prerequisites: MATH 500.

MATH 540 Applied Audio and Image Processing 3 Credits
Investigation of the mathematics behind the processing of sound waves and digital images. Both theory and computer-based applications will be explored, using methods of calculus, matrix-vector algebra, and inner product spaces.
Prerequisites: MATH 500.

MATH 550 Mathematical Logic and Foundations in Mathematics 3 Credits
Study of logical systems, formal languages, satisfaction, deduction, correctness, completeness, applications to algebraic structures and orderings, construction of ordinal and cardinal numbers within axiomatic set theory, models of computation, undecidability, computational complexity, intractability, and introduction to themes within the philosophy of mathematics.
Prerequisites: Acceptance into the Graduate Certificate in Applied Mathematics program.

MATH 560 Applied Number Theory 3 Credits
Applied treatment of number theory including prime numbers, congruences, quadratic residues and primitive roots.
Prerequisites: Acceptance into the Graduate Certificate in Applied Mathematics program.

MATH 570 Applied Cryptography 3 Credits
Exploration of cryptography. Topics include number theory, classical ciphers, integer factorization, primality testing, public-key ciphers, digital signatures schemes, commitment schemes, elliptic curve methods, and applications to e-commerce. Additional topics upon student interest.
Prerequisites: MATH 560.

MATH 596 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Medical Lab Technician (MLTP)

Courses

MLTP 101 Phlebotomy 3 Credits
Orientation to the clinical lab areas and workflow. Emphasis on venipuncture and dermal collections. Skills necessary for limiting pre-analytic errors with sample collections and processing. Knowledge of POC testing, patient collection instructions, send out testing and informatics. Review of regulatory, ethical and legal issues, healthcare delivery system, certification and licensure, organ systems, basic medical terminology, infection prevention, and professionalism.
Corequisites: MLTP 102.
Fees: Yes.

MLTP 102 Applied Phlebotomy 2 Credits
Clinical laboratory experience at an affiliated site. Application of knowledge and skills to venipuncture and dermal collections, sample processing, POC testing, patient collection instructions, send-out testing, informatics, OSHA practices and phlebotomist professionalism are included.
Corequisites: MLTP 101.

MLTP 105 Introduction to Medical Laboratory Technology 3 Credits
Introduction to medical laboratory fundamentals. Medical laboratory organization, professional roles, ethics, regulatory agencies, safety, systems of measurement, basic equipment, quality assessment, computer applications, and automation topics included. Basic skills in laboratory math, medical terminology, and specimen collection and processing will be developed.
Prerequisites: Acceptance into the Medical Laboratory Technician Program.
Terms Typically Offered: Fall.

MLTP 132 Clinical Hematology and Coagulation 3 Credits
Introduction to the theory and practical application of hematology and hemostasis as it relates to the medical laboratory. Bone marrow, blood cell formation, hemoglobin structure and synthesis, cell function and morphology, and coagulation are explored. Correlation of test results with normal results, blood cell disorders and clotting abnormalities emphasized. Laboratory techniques, instrumentation, and quality assurance in the hematology/hemostasis lab.
Prerequisites: Acceptance into the Medical Laboratory Technician Program.
Corequisites: MLTP 132L.
Terms Typically Offered: Spring.

MLTP 132L Clinical Hematology and Coagulation Lab 1 Credit
Introduction to the theory and practical application of hematology and hemostasis as it relates to the medical laboratory. Bone marrow, blood cell formation, hemoglobin structure and synthesis, cell function and morphology, and coagulation are explored. Correlation of test results with normal results, blood cell disorders and clotting abnormalities emphasized. Laboratory techniques, instrumentation, and quality assurance in the hematology/hemostasis lab.
Prerequisites: Acceptance into the Medical Laboratory Technician Program.
Corequisites: MLTP 132.
Terms Typically Offered: Spring.
Fees: Yes.

MLTP 138 Clinical Immunology 2 Credits
Fundamentals and procedures of the immune defenses as it relates to medical laboratory testing. Innate and adaptive immune responses, deficiencies, autoimmunity, hypersensitivity and tissue transplantation. Exploration of serologic techniques and instrumentation in the detection and diagnoses of viral illness, immune related diseases and its applications in immunohematology. Introduction to theories and principles of molecular testing methods.
Prerequisites: Acceptance into the Medical Laboratory Technician Program.
Corequisites: MLTP 138L.
Terms Typically Offered: Fall.

MLTP 138L Clinical Immunology Lab 1 Credit
Fundamentals and procedures of the immune defenses as it relates to medical laboratory testing. Innate and adaptive immune responses, deficiencies, autoimmunity, hypersensitivity and tissue transplantation. Exploration of serologic techniques and instrumentation in the detection and diagnoses of viral illness, immune related diseases and its applications in immunohematology. Introduction to theories and principles of molecular testing methods.
Prerequisites: Acceptance into the Medical Laboratory Technician Program.
Corequisites: MLTP 138.
Terms Typically Offered: Fall.
Fees: Yes.

MLTP 141 Clinical Immunohematology 2 Credits
Theoretical principles and procedures in immunohematology and application in the medical laboratory. Blood banking procedures and potential problems in blood bank testing relative to antibody identification, compatibility testing, transfusion reactions, and maternal/neonatal screening for hemolytic disease of the newborn.
Prerequisites: Acceptance into the Medical Laboratory Technician Program.
Corequisites: MLTP 141L.
Terms Typically Offered: Spring.

MLTP 141L Clinical Immunohematology Lab 1 Credit
Theoretical principles and procedures in immunohematology and application in the medical laboratory. Blood banking procedures and potential problems in blood bank testing relative to antibody identification, compatibility testing, transfusion reactions, and maternal/neonatal screening for hemolytic disease of the newborn.
Prerequisites: Acceptance into the Medical Laboratory Technician Program.
Corequisites: MLTP 141.
Terms Typically Offered: Spring.
Fees: Yes.

MLTP 142 Clinical Microscopy 2 Credits
Introduction to microscopy in the medical laboratory. Emphasis on kidney function and urine formation: examination of the physical, chemical, and microscopic components of urine. Body fluid analysis of feces, seminal, vaginal, amniotic, cerebrospinal, serous, and synovial fluids. Critical analysis and problem solving with regards to pre-analytic, analytic, and post-analytic variables in sample testing.
Prerequisites: Acceptance into the Medical Laboratory Technician Program.
Corequisites: MLTP 142L.
Terms Typically Offered: Fall.

MLTP 142L Clinical Microscopy Lab 1 Credit
Introduction to microscopy in the medical laboratory. Emphasis on kidney function and urine formation: examination of the physical, chemical, and microscopic components of urine. Body fluid analysis of feces, seminal, vaginal, amniotic, cerebrospinal, serous, and synovial fluids. Critical analysis and problem solving with regards to pre-analytic, analytic, and post-analytic variables in sample testing.
Prerequisites: Acceptance into the Medical Laboratory Technician Program.
Corequisites: MLTP 142.
Terms Typically Offered: Fall.
Fees: Yes.

MLTP 180 Applied Immunohematology 3 Credits
Clinical laboratory experience in the principles and procedures of immunohematology at an affiliated site. Online-supported, off-campus clinical laboratory experience taught by clinical faculty. Emphasis is on the application of knowledge and technical skills to clinical testing, methodology, instrumentation, quality control, correlation of laboratory data with pathophysiology, OSHA practices, and medical laboratory technician professionalism are included.
Prerequisites: Acceptance into the Medical Laboratory Technician Program.
Terms Typically Offered: Fall.

MLTP 182 Applied Hematology and Body Fluids 3 Credits
Clinical laboratory experience in principles and procedures of hematology, hemostasis, urinalysis, and body fluids at affiliated site. Online-supported, off-campus clinical laboratory experience taught by clinical faculty. Emphasis on application of knowledge and technical skills to clinical testing, methodology, instrumentation, quality control, correlation of laboratory data with pathophysiology, OSHA practices, and medical laboratory technician professionalism are included.
Prerequisites: Acceptance into the Medical Laboratory Technician Program.
Terms Typically Offered: Fall.

MLTP 195 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

MLTP 231 Clinical Microbiology I 3 Credits
Study of normal flora and pathogenic microorganisms. Methods for recovery, identification of pathogens, culture techniques, procedures, antibiotic testing, automation, and interpretation of clinical data. Emphasis on clinical specimens, testing algorithms and data correlation including diagnostics, public health, safety, and quality control.
Prerequisites: Acceptance into the Medical Laboratory Technician Program.
Corequisites: MLTP 231L.
Terms Typically Offered: Fall.

MLTP 231L Clinical Microbiology I Lab 1 Credit
Study of normal flora and pathogenic microorganisms. Methods for recovery, identification of pathogens, culture techniques, procedures, antibiotic testing, automation, and interpretation of clinical data. Emphasis on clinical specimens, testing algorithms and data correlation including diagnostics, public health, safety, and quality control.
Prerequisites: Acceptance into the Medical Laboratory Technician Program.
Corequisites: MLTP 231.
Terms Typically Offered: Fall.
Fees: Yes.

MLTP 232 Clinical Microbiology II 3 Credits
Basic identification and classification of pathogenic bacteria with unusual growth requirements, fungi, parasites, and viruses. Sample collection, processing, isolation methods, immunologic diagnosis, and treatment. Bioterrorism topics also explored.
Prerequisites: Acceptance into the Medical Laboratory Technician Program.
Terms Typically Offered: Spring.

MLTP 242 Clinical Chemistry 3 Credits
Application of human pathophysiology and relation to laboratory testing. Cardiovascular disease, kidney function, acid-base metabolism, liver, bone, carbohydrate disorders, endocrine, malignancy, and exogenous substances. Exploration of measurement methodologies, instrumentation, reagents and reactions, standards, and control usage in quality assurance. Critical analysis and problem solving with regards to pre-analytic, analytic, and post-analytic variables in sample testing.
Prerequisites: Acceptance into the Medical Laboratory Technician Program.
Corequisites: MLTP 242L.
Terms Typically Offered: Spring.

MLTP 242L Clinical Chemistry Lab 1 Credit
Application of human pathophysiology and relation to laboratory testing. Cardiovascular disease, kidney function, acid-base metabolism, liver, bone, carbohydrate disorders, endocrine, malignancy, and exogenous substances. Exploration of measurement methodologies, instrumentation, reagents and reactions, standards, and control usage in quality assurance. Critical analysis and problem solving with regards to pre-analytic, analytic, and post-analytic variables in sample testing.
Prerequisites: Acceptance into the Medical Laboratory Technician Program.
Corequisites: MLTP 242.
Terms Typically Offered: Spring.
Fees: Yes.

MLTP 250 Applied Chemistry and Serology 3 Credits
Clinical laboratory experience in the principles and procedures of chemistry and serology at an affiliated site. Online-supported, off-campus clinical laboratory experience taught by clinical faculty. Emphasis is on the application of knowledge and technical skills to clinical testing, methodology, instrumentation, quality control, correlation of laboratory data with pathophysiology, OSHA practices, and medical laboratory technician professionalism are included.
Prerequisites: Acceptance into the Medical Laboratory Technician Program.
Terms Typically Offered: Fall.

MLTP 252 Applied Microbiology 3 Credits
Clinical laboratory experience in the principles and procedures of clinical microbiology at an affiliated site. Online-supported, off-campus clinical laboratory experience taught by clinical faculty. Emphasis is on the application of knowledge and technical skills to clinical testing, methodology, instrumentation, quality control, correlation of laboratory data with pathophysiology, OSHA practices, and medical laboratory technician professionalism are included.
Prerequisites: Acceptance into the Medical Laboratory Technician Program.
Terms Typically Offered: Fall.

MLTP 253 Certification Exam Review 1 Credit
Review of key principles and content in preparation for national certification examination.
Prerequisites: Acceptance into the Medical Laboratory Technician Program.
Terms Typically Offered: Fall.

Medical Office Assistant (MOAP)

Courses

MOAP 110 Medical Office Administration 4 Credits
Administrative functions specifically used in medical offices, including: office building management, supply and equipment maintenance and management, patient registration, appointments, and maintenance of patient health records. Students will also learn how to be a medical scribe, support meaningful use of the electronic patient record, and the fundamentals of computing and using computer applications.
Terms Typically Offered: Fall, Spring.

MOAP 111 Introduction to Medical Assisting 3 Credits
Overview of the field of medical office assistant, including description and career opportunities. Professionalism and effective communication. Overview of health care, types of organizations, and health care team. Legal considerations in the medical office, patient rights, the Health Information Portability and Accountability Act (HIPAA), and principles of law and ethics in health care.
Terms Typically Offered: Fall, Spring.

MOAP 130 Medical Office Administration Insurance Billing and Coding 3 Credits
Introduction to outpatient coding, with topics including: identifying medical procedures and services performed (CPT codes); correlating the diagnosis, symptom, complaint, or condition (ICD-9 codes); and establishing the medical necessity required for third-party reimbursement.
Terms Typically Offered: Fall, Spring.

MOAP 133 Basic Medical Sciences I 4 Credits
Comprehensive survey of structural organization, including the normal functions of cardiovascular circulatory, digestive, and urinary systems, as well as comparisons of the structure and function of the human body across the lifespan.
Terms Typically Offered: Fall, Spring.

MOAP 135 Basic Medical Sciences II 4 Credits
Exploration of the cardiovascular, lymphatic, immune, respiratory, digestive, urinary, and reproductive systems, focusing on their organization and function within the human body.
Prerequisites: MOAP 133.
Terms Typically Offered: Fall, Spring, Summer.

MOAP 136 Introduction to Clinical Skills 2 Credits
Principles and procedures of clinical skills. Collection of patient history and data, vital signs, height, weight, and appropriate documentation. Methods of assisting clinicians with physical examinations, procedures, and treatments in the medical office. Infection control and medical asepsis.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

MOAP 138 Medical Assisting Laboratory Skills 4 Credits
Laboratory skills and techniques for collecting, handling, examining, and testing laboratory specimens often encountered in the ambulatory care setting. Emphasizes hands-on experience.
Terms Typically Offered: Fall, Spring, Summer.
Fees: Yes.

MOAP 140 Medical Assisting Clinical Skills 4 Credits
Principles and procedures of medical assisting clinical skills. Methods of assisting clinicians with specialty physical examinations, diagnostic testing, procedures, treatments, and minor surgical procedures in the medical office. Principles of medication administration, with an emphasis on oral and parenteral routes of drug administration.
Prerequisites: MOAP 111 and MOAP 136.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

MOAP 147 Medical Terminology 1 Credit
Basic medical terminology, as applied to major systems of the body and related diseases. Includes special applications related to medical practice, with emphasis on spelling.
Terms Typically Offered: Fall, Spring, Summer.

MOAP 148 Introduction to Human Disease 3 Credits
Focused analysis of the causes and mechanics of human illness and death for each of the major human body systems. Selected diseases will be studied in greater detail, including: etiology, pathogenesis, epidemiology, sociology, and therapy.
Prerequisites: MOAP 133 and MOAP 147.
Terms Typically Offered: Spring.

MOAP 150 Pharmacology for Medical Assistants 3 Credits
Overview of pharmacology. Drug action and uses, names, classifications, effects, interactions, regulation, and safety. Vaccine and immunization schedules and administration. Measurement of medications, dosage calculations, routes of administration, and commonly prescribed drugs in the medical office.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

MOAP 183 Medical Assistant Internship 5 Credits
Supervised placement in contracted facility for guided experience in application of knowledge and skills acquired in the classroom. Business and clinical procedures. Permission of program coordinator required to begin internship.
Terms Typically Offered: Fall, Spring, Summer.

MOAP 189 Review for Medical Assistant National Exam 1 Credit
Preparation and practice for a national registration examination.
Prerequisites: Permission of Program Director.
Terms Typically Offered: Fall, Spring, Summer.

MOAP 196 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Music/Academic (MUSA)

Courses

MUSA 101 Concert Attendance 0 Credits
Exploration of repertoire, current trends in music, and career development through attendance at concerts and a weekly music forum.
Terms Typically Offered: Fall, Spring.
Course may be taken 8 times for credit.

MUSA 111 Music Technology 1 Credit
Introduction to music software programs that are widely accepted in the field of music.
Prerequisites: Music major or consent of instructor.
Terms Typically Offered: Fall, Spring.

MUSA 113 Fundamentals of Theory 3 Credits
Study of the fundamentals of music theory for music majors and music theater majors in preparation to begin the music theory sequence. Covers harmonic principles of music, including major and minor scales, intervals, triads, and chords.
Terms Typically Offered: Fall.

MUSA 114 Theory I-Introduction 3 Credits
Harmonic principles of the "common-practice" period including scales, intervals, triads and 7th chords. Introduction to part writing and voice leading.
Prerequisites: Satisfactory score on theory placement examination.
Corequisites: MUSA 116.
Terms Typically Offered: Fall, Spring.

MUSA 115 Theory II-Diatonic Concepts 3 Credits
Continuation of MUSA 114, extending to all types of diatonic 7th chords, and their usages. Includes advanced rules of tonal harmonization.
Prerequisites: MUSA 114.
Corequisites: MUSA 117.
Terms Typically Offered: Fall, Spring.

MUSA 116 Ear Training and Sightsinging I 2 Credits
Development of skills of reading rhythms, sightsinging, and listening. Emphasis on beginning melodic, harmonic, and rhythmic dictation.
Corequisites: MUSA 114.
Terms Typically Offered: Fall, Spring.

MUSA 117 Ear Training and Sightsinging II 2 Credits
Further development of skills in sightsinging, rhythmic recognition, advanced listening abilities, including dictation of melodic and harmonic intervals, chord progressions, and two, three, and four-part chorales.
Prerequisites: MUSA 116.
Corequisites: MUSA 115.
Terms Typically Offered: Fall, Spring.

MUSA 120 Class Piano for Non Majors I 2 Credits
Introductory piano proficiency (rudimentary note reading, music vocabulary, technique, aural skills, theory, and creative application of musical skills). Open to all students (no prerequisites or corequisites), but recommended specifically for students who have little or no training in piano and are not music (or music theater) majors or minors.
Terms Typically Offered: Fall.

MUSA 121 Class Piano for Non Majors II 2 Credits
Beginning piano proficiency (note reading, scales, triads, chord symbols, and creative application of musical skills). Open to all students (no prerequisites or corequisites), but recommended specifically for students who have little or no training in piano and are not music (or music theater) majors or minors.
Terms Typically Offered: Spring.

MUSA 122 Class Guitar 2 Credits
Introduction to guitar for all students, including performance in various styles, reading notation, and technical skills.
Terms Typically Offered: Fall.

MUSA 125 Fundamentals of Piano 1 Credit
Introduction to basic piano skills, including key recognition, major and minor scales, triads with inversions, and simple sight-reading. Emphasis on playing with both hands through classical pieces and rhythmic exercises.
Terms Typically Offered: Fall.

MUSA 129 Singer's Diction I: English and Italian 1 Credit
Study of the International Phonetic Alphabet (IPA) and its use in the pronunciation of lyric diction for English and Italian.
Terms Typically Offered: Fall.

MUSA 130 Class Piano I 1 Credit
Development of keyboard skills, including major/minor scales, chord progressions, and sight-reading classical and popular music. Focus on two-octave scales and foundational improvisation.
Terms Typically Offered: Spring.

MUSA 131 Class Piano II 1 Credit
Continued piano skill development, with scales, seventh chords, syncopated sight-reading, and complex chord progressions. Focuses on improvisation and interpretation of classical and popular repertoire.
Prerequisites: MUSA 130.
Terms Typically Offered: Fall.

MUSA 137 Class Voice 1 Credit
Fundamentals of singing, interpretation, phonetics, language (diction for singers), and solo repertoire for beginning voice students.
Terms Typically Offered: Fall.

MUSA 210 Vocal Function and Basics 2 Credits
Introduction to the anatomy and physiology of the human vocal mechanism. Basic concepts of vocal health, breathing techniques, and sound production. Focus on understanding vocal function in everyday life and performance contexts.
Terms Typically Offered: Spring.

MUSA 214 Theory III - Chromatic Concepts 3 Credits
Full use of chromaticism through secondary dominants, altered chords, Neapolitan and augmented sixth chords, and modulation techniques. Continues into 20th Century including the use of advanced chromaticism. Includes advanced development of ear training and sightsinging.
Prerequisites: MUSA 115 and MUSA 117.
Terms Typically Offered: Fall, Spring.

MUSA 215 Theory IV - Twentieth Century Form and Analysis 3 Credits
Final components of Common Practice Period harmony, including augmented sixth and common-tone diminished seventh chords, then progressing into musical form. Study of 20th century techniques, including Impressionism, Expressionism, Neo-Classicism, Neo-Romanticism, Serialism and other atonal techniques. Jazz Theory will also be covered.
Prerequisites: MUSA 214.
Terms Typically Offered: Fall, Spring.

MUSA 220 Music Appreciation-GTAH1 3 Credits
Overview of the basic elements of music and of Western music history. Emphasis on listening to a variety of music with intellect and emotion, and above all, purposeful attention. Examples come mainly from the Western "classical" tradition, jazz, and popular music.
Essential Learning Categories: Fine Arts
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

MUSA 222 History of Country Music-GTAH1 3 Credits
Introduction to musical and cultural roots of country music. Topics include: engaging listening skills at a higher level, differentiating styles of country music, interpreting varied meanings of country music within different historical and cultural contexts, and explaining country music's role and identity as a genre within popular culture.
Essential Learning Categories: Fine Arts
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

MUSA 229 Singer's Diction II: German and French 1 Credit
Study of the International Phonetic Alphabet (IPA) and its use in the pronunciation of lyric diction for German and French.
Prerequisites: MUSA 129.
Terms Typically Offered: Spring.

MUSA 230 Class Piano III 1 Credit
Development of piano skills, focusing on modal scales, chromatic harmony, composition, and advanced improvisation techniques. Prepares students for solo and collaborative performance settings as applicable to all music careers.
Prerequisites: MUSA 130 and MUSA 131.
Terms Typically Offered: Fall.

MUSA 231 Class Piano IV 2 Credits
Culmination of concepts covered in MUSA 130, MUSA 131, and MUSA 230. Emphasis on jazz keyboarding skills, reading from open vocal score or instrumental score with transposing parts, and creating and playing accompaniments for simple pieces.
Prerequisites: MUSA 230.
Terms Typically Offered: Spring.

MUSA 232 String Techniques and Materials 2 Credits
Study of violin, viola, cello, and string bass with emphasis on fundamental playing techniques and pedagogical approaches for teaching in schools.
Terms Typically Offered: Fall.

MUSA 233 Woodwind Techniques and Materials 2 Credits
Study of woodwind instruments with emphasis on fundamental playing techniques and pedagogical approaches for teaching in schools.
Terms Typically Offered: Fall.

MUSA 234 Brass Techniques and Materials 2 Credits
Study of brass instruments with emphasis on fundamental playing techniques and pedagogical approaches for teaching in schools.
Terms Typically Offered: Spring.

MUSA 235 Percussion Techniques and Materials 2 Credits
Study of percussion with emphasis on fundamental playing techniques and pedagogical approaches for teaching in schools.
Terms Typically Offered: Spring.

MUSA 240 Introduction to Music Education 2 Credits
Survey of the history and pedagogical methods used in the profession. Includes in-class observations of effective music teachers to determine successful classroom management systems and methods of instruction. Students develop their personal philosophies of music education while exploring the career possibilities in music education.
Terms Typically Offered: Fall.

MUSA 250 Beginning Conducting 1 Credit
Development of basic techniques necessary for musical leadership. Students are expected to master fundamental patterns, fermatas, dynamics, etc. Includes observation of professional conductors.
Terms Typically Offered: Spring.

MUSA 258 Introduction to Improvisation 1 Credit
Exploration of theory, philosophy, and application of basic improvisational techniques for musicians. Improvisation on the basic elements of music such as rhythm, melody, harmony, and timbre.
Terms Typically Offered: Fall.

MUSA 262 Commercial Arranging 1 Credit
Approaches to arranging music for commercial music styles, including lead sheets, pop chord symbols, lyrics, transposition, rhythm section parts, and chord voicings.
Prerequisites: MUSA 111 and MUSA 115.
Terms Typically Offered: Spring.

MUSA 266 History of Popular Music-GTAH1 3 Credits
Introduction to musical and cultural roots of popular music. Focus is to engage listening skills at a higher level, identify elements of popular music, evaluate the intent of lyrics, differentiate between styles of popular music, and examine the social impact popular music has on society, and vice versa.
Essential Learning Categories: Fine Arts
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

MUSA 267 Jazz History and Literature-GTAH1 3 Credits
Survey of prominent artists, innovators, and stylistic trends in jazz from its origins to the contemporary.
Essential Learning Categories: Fine Arts
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum

MUSA 268 Beginning Jazz Improvisation 1 Credit
Materials and techniques for improvisation, including chord and scale construction, modality, harmonic patterns, linear concepts, with emphasis on technique, style and idiomatic usage.
Prerequisites: MUSA 115.
Terms Typically Offered: Fall.

MUSA 296 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

MUSA 302 Keyboard Literature I 3 Credits
Survey of keyboard literature from Elizabethan music through Mendelssohn.
Prerequisites: MUSA 231 or MUSL 230.
Terms Typically Offered: Fall.

MUSA 303 Symphonic Literature 3 Credits
Survey of symphonic music from early instrumental to present-day compositions. Emphasis on composers' styles, orchestras, and conductors. Chamber orchestra music also included.
Terms Typically Offered: Spring.

MUSA 304 Keyboard Literature II 3 Credits
Survey of keyboard literature from Chopin to the present day.
Prerequisites: MUSA 231 or MUSL 230.
Terms Typically Offered: Fall, Spring.

MUSA 305 Keyboard Literature 3 Credits
Survey of keyboard music, from early Baroque music to present-day compositions. The class examines composer's styles and pianists from different eras of classical and jazz music.
Prerequisites: MUSA 231 or MUSL 230.
Terms Typically Offered: Spring.

MUSA 310 Accompanying Techniques 2 Credits
Development of accompanying proficiency, including listening skills, form, and analysis of the music to be performed; rehearsing techniques; and accompanying repertoire for vocal, instrumental, and ensemble playing.
Prerequisites: MUSA 214.
Terms Typically Offered: Spring.

MUSA 311 Advanced Music Technology 2 Credits
Application of advanced technological tools in music including recording, editing, production, and sound reinforcement.
Prerequisites: MUSA 111.
Terms Typically Offered: Fall.

MUSA 312 Electronic Music 2 Credits
Techniques for the creation of electronic music in contemporary composition and live performance.
Prerequisites: MUSA 111.
Terms Typically Offered: Fall.

MUSA 317 Applied Orchestration and Arranging 2 Credits
Choral and instrumental arranging; instrumentation, scoring, and analysis of harmonic styles of various composers. Arrangement of works for various combinations of instruments.
Prerequisites: MUSA 214.
Terms Typically Offered: Fall.

MUSA 318 Vocal Literature 3 Credits
Study of the changing patterns, styles, and fashions of the secular art-song from medieval Europe to Europe and America of the day.
Prerequisites: MUSA 137 or previous enrollment in private vocal studies.
Terms Typically Offered: Fall, Spring.

MUSA 319 Choral Literature 3 Credits
Historical, analytical, and interpretive study of choral literature spanning the Renaissance through the 20th Century. Important course for those planning to direct choirs.
Prerequisites: Previous or concurrent enrollment in a Colorado Mesa University choir.
Terms Typically Offered: Fall, Spring.

MUSA 326 Music History and Literature I 3 Credits
Literature and styles of the master composers of music through the Medieval, Renaissance, and Baroque periods.
Prerequisites: MUSA 214.
Terms Typically Offered: Fall.

MUSA 327 Music History and Literature II 3 Credits
Literature and styles of the master composers of music through the classic, romantic, and modern ages.
Prerequisites: MUSA 214.
Terms Typically Offered: Spring.

MUSA 340 Teaching Elementary and General Music: Methods, Principles, and Materials 3 Credits
Exploration of methods and materials for teaching music to elementary-aged children, focusing on developmental abilities, effective sequencing, lesson planning, classroom management, and student engagement. Students investigate pedagogical approaches and gain practical experience through hands-on activities, peer teaching, and observation, fostering a musically enriching environment for young learners. This course includes 30 hours of field experience.
Prerequisites: MUSA 240.
Terms Typically Offered: Fall.

MUSA 350A Advanced Conducting: Choral 2 Credits
Development of advanced techniques, such as score study, interpretive conducting, gestural vocabulary, and ensemble rehearsal techniques.
Prerequisites: MUSA 250.
Terms Typically Offered: Fall.

MUSA 350B Advanced Conducting: Instrumental 2 Credits
Development of advanced techniques, score study, interpretive conducting, gestural vocabulary, ensemble rehearsal techniques, and rehearsal observations.
Prerequisites: MUSA 250.
Terms Typically Offered: Fall.

MUSA 363 Music Industry and Marketing 2 Credits
Exploration of business aspects of the music industry, with an emphasis on careers and music marketing.
Terms Typically Offered: Fall.

MUSA 365 Entrepreneurship for Creatives 2 Credits
Preparation for aspiring creatives in a variety of disciplines to build a career through entrepreneurial activities including business model development, project management strategy development, budgeting, and promotion, leading to a startup endeavor in the creative sector.
Terms Typically Offered: Spring.

MUSA 367 Arts Management 2 Credits
Introduction to the field of arts management, exploring principles of arts administration and trends and issues for non-profit social ventures as well as for-profit entities in a wide variety of arts disciplines.
Terms Typically Offered: Fall.

MUSA 368 Advanced Jazz Improvisation 2 Credits
Expansion upon the fundamental concepts presented in Beginning Jazz Improvisation. Topics addressed include chromaticism, harmony and scales in minor keys, diminished seventh chords and scales, rhythm changes, tritone substitutions, modal jazz, and improvisational patterns as applied to a variety of jazz standards.
Prerequisites: MUSA 214 and MUSA 268.
Terms Typically Offered: Spring.

MUSA 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

MUSA 396 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

MUSA 410 Vocal Pedagogy 1 Credit
Application of vocal function knowledge to the teaching of voice. Exploration of pedagogical methods, development of teaching skills for private voice instruction, and principles of running a private studio. Required for vocal performance majors; elective for others.
Prerequisites: MUSA 210.
Terms Typically Offered: Spring.

MUSA 411 Piano Pedagogy 3 Credits
Introduction to the field of piano teaching and pedagogical theories, with application to piano teaching. Survey of methods and literature. Instructional techniques for group and individual lesson settings.
Prerequisites: MUSA 231 or MUSL 230.
Terms Typically Offered: Fall.

MUSA 426 The Music of World Cultures 2 Credits
Exploration of the methods and philosophies of ethnomusicology—the study of music making with perspectives from anthropology, sociology, history, linguistics, and cultural studies. The course includes study of music from a variety of worldwide cultures.
Prerequisites: MUSA 214.
Terms Typically Offered: Spring.

MUSA 440 Teaching Vocal Music K-12: Methods, Principles, and Materials 2 Credits
Standards-based instruction of ensemble classes at the secondary level. Training in concepts, methodology, and materials necessary to teach standards-based vocal music in public/private schools.
Prerequisites: MUSA 137 or MUSL 137 or MUSP 156 or MUSP 157 or MUSP 158 or MUSP 159.
Terms Typically Offered: Spring.

MUSA 441 Teaching Instrumental Music K-12: Methods, Principles and Materials 2 Credits
Standards-based music curriculum for teaching instrumental music in the public schools. Includes developing teaching competencies, administration of the music program, and methods, materials, equipment, and technology needed for the instrumental music program.
Prerequisites: MUSA 240.
Terms Typically Offered: Spring.

MUSA 442A Teaching Special Ensembles: Choral 2 Credits
Practical knowledge and methodology in the teaching of Show/Jazz Choirs and Marching/Jazz Bands. Students will learn the skills necessary to direct these ensembles. Includes 30 hours of field experience.
Prerequisites: MUSA 215, MUSA 240, and MUSA 250; and MUSA 350A or MUSA 350B (MUSA 350A or MUSA 350B may be taken concurrently).
Terms Typically Offered: Fall, Spring.

MUSA 442B Teaching Special Ensembles: Instrumental 2 Credits
Practical knowledge and methodology in the teaching of (A) Show/Jazz Choirs and (B) Marching/Jazz Bands. Students will learn the skills necessary to direct these ensembles. Includes 30 hours of field experience.
Prerequisites: MUSA 215, MUSA 240 and MUSA 250.
Corequisites: MUSA 350A or MUSA 350B if not completed.

MUSA 495 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

MUSA 496 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

MUSA 499 Internship 1-4 Credits
Work experience obtained on a job in the music industry.
Prerequisites: Senior status, MUSA 363, and permission of instructor.
Course may be taken multiple times up to maximum of 15 credit hours.

MUSA 596 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Music/Lessons (MUSL)

Courses

MUSL 130 Piano 1 or 2 Credits
Development of individual music performance skills in piano through weekly lessons. Available to all students and may be used as an elective choice to students concurrently enrolled in a MUSP course. Lessons may be taken twice at each level. An instructional fee is required. For first year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.
Fees: Yes.

MUSL 131 Guitar 1 or 2 Credits
Development of individual music performance skills in guitar through weekly lessons. Available to all students and may be used as an elective choice to students concurrently enrolled in a MUSP course. Lessons may be taken twice at each level. An instructional fee is required. For first year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.
Fees: Yes.

MUSL 132 Strings 1 or 2 Credits
Development of individual music performance skills in strings through weekly lessons. Available to all students and may be used as an elective choice to students concurrently enrolled in a MUSP course. Lessons may be taken twice at each level. An instructional fee is required. For first year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.
Fees: Yes.

MUSL 133 Woodwinds 1 or 2 Credits
Development of individual music performance skills in woodwinds through weekly lessons. Available to all students and may be used as an elective choice to students concurrently enrolled in a MUSP course. Lessons may be taken twice at each level. An instructional fee is required. For first year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.
Fees: Yes.

MUSL 134 Brass 1 or 2 Credits
Development of individual music performance skills through weekly lessons. Available to all students and may be used as an elective choice to students concurrently enrolled in a MUSP course. Lessons may be taken twice at each level. Music majors are required to attend and perform at weekly recitals as a component of applied music lessons. An instructional fee is required.
Course may be taken 2 times for credit.
Fees: Yes.

MUSL 135 Percussion 1 or 2 Credits
Development of individual music performance skills in percussion through weekly lessons. Available to all students and may be used as an elective choice to students concurrently enrolled in a MUSP course. Lessons may be taken twice at each level. An instructional fee is required. For first year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.
Fees: Yes.

MUSL 136 Electronic Instruments 1 or 2 Credits
Development of individual music performance skills in electronic instruments through weekly lessons. Available to all students and may be used as an elective choice to students concurrently enrolled in a MUSP course. Lessons may be taken twice at each level. An instructional fee is required. For first-year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.
Fees: Yes.

MUSL 137 Voice 1 or 2 Credits
Development of individual music performance skills in voice through weekly lessons. Available to all students and may be used as an elective choice to students concurrently enrolled in a MUSP course. Lessons may be taken twice at each level. An instructional fee is required. For first-year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.
Fees: Yes.

MUSL 138 Composition 1 or 2 Credits
Development of individual music composition skills through weekly lessons. Available to all students and may be used as an elective choice to students concurrently enrolled in a MUSP course. Lessons may be taken twice at each level. An instructional fee is required. For first-year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.
Fees: Yes.

MUSL 139 Jazz/Commercial 1 or 2 Credits
Development of individual music performance skills through weekly lessons. Available to all students and may be used as an elective choice to students concurrently enrolled in a MUSP course. An instructional fee is required. For first-year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.
Fees: Yes.

MUSL 230 Piano 1 or 2 Credits
Development of individual music performance skills in piano through weekly lessons. Available to all students and may be used as an elective choice to students concurrently enrolled in a MUSP course. Lessons may be taken twice at each level. An instructional fee is required. For second year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.
Fees: Yes.

MUSL 231 Guitar 1 or 2 Credits
Development of individual music performance skills through weekly lessons. Available to all students and may be used as an elective choice to students concurrently enrolled in a MUSP course. Lessons may be taken twice at each level. Music majors are required to attend and perform at weekly recitals as a component of applied music lessons. An instructional fee is required.
Course may be taken 2 times for credit.
Fees: Yes.

MUSL 232 Strings 1 or 2 Credits
Development of individual music performance skills in strings through weekly lessons. Available to all students and may be used as an elective choice to students concurrently enrolled in a MUSP course. Lessons may be taken twice at each level. An instructional fee is required. For second year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.
Fees: Yes.

MUSL 233 Woodwinds 1 or 2 Credits
Development of individual music performance skills in woodwinds through weekly lessons. Available to all students and may be used as an elective choice to students concurrently enrolled in a MUSP course. Lessons may be taken twice at each level. An instructional fee is required. For second year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.
Fees: Yes.

MUSL 234 Brass 1 or 2 Credits
Development of individual music performance skills through weekly lessons. Available to all students and may be used as an elective choice to students concurrently enrolled in a MUSP course. Lessons may be taken twice at each level. Music majors are required to attend and perform at weekly recitals as a component of applied music lessons. An instructional fee is required.
Course may be taken 2 times for credit.
Fees: Yes.

MUSL 235 Percussion 1 or 2 Credits
Development of individual music performance skills in percussion through weekly lessons. Available to all students and may be used as an elective choice to students concurrently enrolled in a MUSP course. Lessons may be taken twice at each level. An instructional fee is required. For second year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.
Fees: Yes.

MUSL 236 Electronic Instruments 1 or 2 Credits
Development of individual music performance skills in electronic instruments through weekly lessons. Available to all students and may be used as an elective choice to students concurrently enrolled in a MUSP course. Lessons may be taken twice at each level. An instructional fee is required. For second-year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.
Fees: Yes.

MUSL 237 Voice 1 or 2 Credits
Development of individual music performance skills in voice through weekly lessons. Available to all students and may be used as an elective choice to students concurrently enrolled in a MUSP course. Lessons may be taken twice at each level. An instructional fee is required. For second-year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.
Fees: Yes.

MUSL 238 Composition 1 or 2 Credits
Development of individual music composition skills through weekly lessons. Available to all students and may be used as an elective choice to students concurrently enrolled in a MUSP course. Lessons may be taken twice at each level. An instructional fee is required. For second-year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.
Fees: Yes.

MUSL 239 Jazz/Commercial 1 or 2 Credits
Development of individual music performance skills through weekly lessons. Available to all students and may be used as an elective choice to students concurrently enrolled in a MUSP course. An instructional fee is required. For second-year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.
Fees: Yes.

MUSL 330 Piano 1 or 2 Credits
Development of individual music performance skills in piano through weekly lessons. Available to all students and may be used as an elective choice to students concurrently enrolled in a MUSP course. Lessons may be taken twice at each level. An instructional fee is required. For third year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.
Fees: Yes.

MUSL 331 Guitar 1-2 Credits
Development of individual music performance skills through weekly lessons. Available to all students and may be used as an elective choice to students concurrently enrolled in a MUSP course. Lessons may be taken twice at each level. Music majors are required to attend and perform at weekly recitals as a component of applied music lessons. An instructional fee is required.
Course may be taken 2 times for credit.
Fees: Yes.

MUSL 332 Strings 1 or 2 Credits
Development of individual music performance skills in strings through weekly lessons. Available to all students and may be used as an elective choice to students concurrently enrolled in a MUSP course. Lessons may be taken twice at each level. An instructional fee is required. For third year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.
Fees: Yes.

MUSL 333 Woodwinds 1 or 2 Credits
Development of individual music performance skills in woodwinds through weekly lessons. Available to all students and may be used as an elective choice to students concurrently enrolled in a MUSP course. Lessons may be taken twice at each level. An instructional fee is required. For third year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.
Fees: Yes.

MUSL 334 Brass 1 or 2 Credits
Development of individual music performance skills through weekly lessons. Available to all students and may be used as an elective choice to students concurrently enrolled in a MUSP course. Lessons may be taken twice at each level. Music majors are required to attend and perform at weekly recitals as a component of applied music lessons. An instructional fee is required.
Course may be taken 2 times for credit.
Fees: Yes.

MUSL 335 Percussion 1 or 2 Credits
Development of individual music performance skills through weekly lessons in percussion. Available to all students and may be used as an elective choice to students concurrently enrolled in a MUSP course. Lessons may be taken twice at each level. An instructional fee is required. For third year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.
Fees: Yes.

MUSL 336 Electronic Instruments 1 or 2 Credits
Development of individual music performance skills in electronic instruments through weekly lessons. Available to all students and may be used as an elective choice to students concurrently enrolled in a MUSP course. Lessons may be taken twice at each level. An instructional fee is required. For third-year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.
Fees: Yes.

MUSL 337 Voice 1 or 2 Credits
Development of individual music performance skills in voice through weekly lessons. Available to all students and may be used as an elective choice to students concurrently enrolled in a MUSP course. Lessons may be taken twice at each level. An instructional fee is required. For third-year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.
Fees: Yes.

MUSL 338 Composition 1 or 2 Credits
Development of individual music composition skills through weekly lessons. Available to all students and may be used as an elective choice to students concurrently enrolled in a MUSP course. Lessons may be taken twice at each level. An instructional fee is required. For third-year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.
Fees: Yes.

MUSL 339 Jazz/Commercial 1 or 2 Credits
Development of individual music performance skills through weekly lessons. Available to all students and may be used as an elective choice to students concurrently enrolled in a MUSP course. An instructional fee is required. For third-year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.
Fees: Yes.

MUSL 340 Instrumental Pedagogy and Literature 1 Credit
Private one-on-one instruction of instrumental pedagogy and literature for woodwinds, brass, percussion, and strings music performance major students. The student will develop skills and knowledge of pedagogy of his/her primary instrument for future studio teaching. The student will also explore a survey of repertory for the instrument, including solo, chamber, band, and/or orchestra literature.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.
Fees: Yes.

MUSL 350 Conducting 1 or 2 Credits
Development of individual music performance skills in conducting through weekly lessons. Available to all students and may be used as an elective choice to students concurrently enrolled in a MUSP course. Lessons may be taken twice at each level. An instructional fee is required. For third year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.
Fees: Yes.

MUSL 430 Piano 1 or 2 Credits
Development of individual music performance skills in piano through weekly lessons. Available to all students and may be used as an elective choice to students concurrently enrolled in a MUSP course. Lessons may be taken up to four times at the 400 level. An instructional fee is required. For fourth year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 4 times for credit.
Fees: Yes.

MUSL 431 Guitar 1 or 2 Credits
Development of individual music performance skills through weekly lessons. Available to all students and may be used as an elective choice to students concurrently enrolled in a MUSP course. Lessons may be taken twice at each level. Music majors are required to attend and perform at weekly recitals as a component of applied music lessons. An instructional fee is required.
Course may be taken 4 times for credit.
Fees: Yes.

MUSL 432 Strings 1 or 2 Credits
Development of individual music performance skills in strings through weekly lessons. Available to all students and may be used as an elective choice to students concurrently enrolled in a MUSP course. Lessons may be taken up to four times at the 400 level. An instructional fee is required. For fourth year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 4 times for credit.
Fees: Yes.

MUSL 433 Woodwinds 1 or 2 Credits
Development of individual music performance skills in woodwinds through weekly lessons. Available to all students and may be used as an elective choice to students concurrently enrolled in a MUSP course. Lessons may be taken up to four times at the 400 level. An instructional fee is required. For fourth year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 4 times for credit.
Fees: Yes.

MUSL 434 Brass 1 or 2 Credits
Development of individual music performance skills through weekly lessons. Available to all students and may be used as an elective choice to students concurrently enrolled in a MUSP course. Lessons may be taken twice at each level. Music majors are required to attend and perform at weekly recitals as a component of applied music lessons. An instructional fee is required.
Course may be taken 4 times for credit.
Fees: Yes.

MUSL 435 Percussion 1 or 2 Credits
Development of individual music performance skills in percussion through weekly lessons. Available to all students and may be used as an elective choice to students concurrently enrolled in a MUSP course. Lessons may be taken up to four times at the 400 level. An instructional fee is required. For fourth year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 4 times for credit.
Fees: Yes.

MUSL 436 Electronic Instruments 1 or 2 Credits
Development of individual music performance skills in electronic instruments through weekly lessons. Available to all students and may be used as an elective choice to students concurrently enrolled in a MUSP course. Lessons may be taken up to four times at the 400 level. An instructional fee is required. For fourth-year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 4 times for credit.
Fees: Yes.

MUSL 437 Voice 1 or 2 Credits
Development of individual music performance skills in voice through weekly lessons. Available to all students and may be used as an elective choice to students concurrently enrolled in a MUSP course. Lessons may be taken up to four times at the 400 level. An instructional fee is required. For fourth-year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 4 times for credit.
Fees: Yes.

MUSL 438 Composition 1 or 2 Credits
Development of individual music composition skills through weekly lessons. Available to all students and may be used as an elective choice to students concurrently enrolled in a MUSP course. Lessons may be taken up to four times at the 400 level. An instructional fee is required. For fourth-year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 4 times for credit.
Fees: Yes.

MUSL 439 Jazz/Commercial 1 or 2 Credits
Development of individual music performance skills through weekly lessons. Available to all students and may be used as an elective choice to students concurrently enrolled in a MUSP course. An instructional fee is required. For fourth-year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 4 times for credit.
Fees: Yes.

MUSL 450 Conducting 1 or 2 Credits
Development of individual music performance skills in conducting through weekly lessons. Available to all students and may be used as an elective choice to students concurrently enrolled in a MUSP course. Lessons may be taken up to four times at the 400 level. An instructional fee is required. For fourth year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 4 times for credit.
Fees: Yes.

Music/Performing (MUSP)

Courses

MUSP 138 Concert Band 1 Credit
Performance ensemble open to all students, regardless of major, with experience playing a woodwind, brass, or percussion instrument. Emphasis on developing ensemble skills through a wide variety of wind band literature. No audition required. For first-year students.
Terms Typically Offered: Spring.
Course may be taken 2 times for credit.

MUSP 138Z Concert Band 0 Credits
Performance ensemble open to all students, regardless of major, with experience playing a woodwind, brass, or percussion instrument. Emphasis on developing ensemble skills through a wide variety of wind band literature. No audition required. This zero-credit option is available after registering for at least one MUSP course for credit.
Prerequisites: Concurrent enrollment in a 1-credit MUSP course.
Terms Typically Offered: Spring.

MUSP 140 Wind Symphony 1 Credit
Symphony comprised of serious wind and percussion students, including music majors and non-music majors, who perform a wide variety of standard and current literature. Audition with conductor required. For first-year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

MUSP 140Z Wind Symphony 0 Credits
Symphony comprised of serious wind and percussion students, including music majors and non-music majors, who perform a wide variety of standard and current literature. Audition with conductor required. This zero-credit option is available after registering for at least one MUSP course for credit.
Prerequisites: Concurrent enrollment in a 1-credit MUSP course.
Terms Typically Offered: Fall, Spring.

MUSP 141 Symphony Orchestra 1 Credit
Ensemble designed to rehearse and perform string orchestra and symphonic literature as well as choral, opera and concerto repertoire. Audition required. For first-year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

MUSP 141Z Symphony Orchestra 0 Credits
Ensemble designed to rehearse and perform string orchestra and symphonic literature as well as choral, opera, and concerto repertoire. Audition required. This zero-credit option is available after registering for at least one MUSP course for credit.
Prerequisites: Concurrent enrollment in a 1-credit MUSP course.
Terms Typically Offered: Fall, Spring.

MUSP 143 Rowdy Brass Band 1 Credit
Ambassador ensemble, training contemporary musicians to provide high-quality entertainment. Performs custom arrangements across styles, emphasizing showmanship and choreography to meet present-day music industry standards. Open by audition to brass, saxophone, electronic, and percussion students, with scholarship and professional opportunities. For first-year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

MUSP 143Z Rowdy Brass Band 0 Credits
Ambassador ensemble, training contemporary musicians to provide high-quality entertainment. Performs custom arrangements across styles, emphasizing showmanship and choreography to meet present-day music industry standards. Open by audition to brass, saxophone, electronic, and percussion students, with scholarship and professional opportunities. This zero-credit option is available after registering for at least one MUSP course for credit.
Prerequisites: Concurrent enrollment in a 1-credit MUSP course.
Terms Typically Offered: Fall, Spring.

MUSP 144 Jazz Ensemble 1 Credit
Performance of a variety of styles related to the jazz idiom in large and small ensembles. For first-year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

MUSP 144Z Jazz Ensemble 0 Credits
Performance of a variety of styles related to the jazz idiom in large and small ensembles. This zero-credit option is available after registering for at least one MUSP course for credit.
Prerequisites: Concurrent enrollment in a 1-credit MUSP course.
Terms Typically Offered: Fall, Spring.

MUSP 145 Chamber Ensembles 1 Credit
Groups organized upon the talents and interests of the members. Specified ensembles may be offered in the format brass, keyboard, percussion, string, woodwind, and vocal ensembles. For first-year students.
Prerequisites: Membership approval by the director.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

MUSP 145Z Chamber Ensembles 0 Credits
Groups organized upon the talents and interests of the members. Specified ensembles may be offered in the format brass, keyboard, percussion, string, woodwind, and vocal ensembles. This zero-credit option is available after registering for at least one MUSP course for credit.
Prerequisites: Concurrent enrollment in a 1-credit MUSP course.
Terms Typically Offered: Fall, Spring.

MUSP 147 Marching Band 1 Credit
Rehearsal and presentation of musical and physical performance proficiencies. Development of self-discipline, leadership, and individual and ensemble performance. Advanced practice in physical alignment, balance, endurance, flexibility, and strength in technical competency. Available to all university students. Only MUSP 147 counts as a KINA activity credit. For first-year students.
Prerequisites: Audition or consent of instructor required.
Terms Typically Offered: Fall.

MUSP 147Z Marching Band 0 Credits
Rehearsal and presentation of musical and physical performance proficiencies. Development of self-discipline, leadership, and individual and ensemble performance. Advanced practice in alignment, balance, endurance, flexibility, and strength. Available to all university students. Only MUSP 147 counts as a KINA activity credit. This zero-credit option is available after taking MUSP 147 for credit in a prior season.
Prerequisites: MUSP 147; Audition or consent of instructor required.
Terms Typically Offered: Fall.

MUSP 156 Vocal Arts Ensemble 1 Credit
CMU's flagship choral ensemble. Mid-sized vocal ensemble that performs choral music from all eras. Vocal Arts Ensemble performs on and off campus and on concert tours. Any student is eligible through audition. For first-year students.
Prerequisites: Successful audition with director.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

MUSP 156Z Vocal Arts Ensemble 0 Credits
Flagship choral ensemble for CMU. Mid-sized vocal ensemble that performs choral music from all eras. Vocal Arts Ensemble performs on and off campus and on concert tours. Any student is eligible through audition. This zero-credit option is available after registering for at least one MUSP course for credit.
Prerequisites: Concurrent enrollment in a 1-credit MUSP course.
Terms Typically Offered: Fall, Spring.

MUSP 157 Tenor/Bass Choir 1 Credit
Campus-wide chorus open to all interested students and faculty. Performs all types of music written for combined tenor and bass voices. Concertizes in conjunction with other university choral ensembles and in separate performances on-off campus. Members must perform a brief audition with instructor. For first-year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

MUSP 157Z Tenor/Bass Choir 0 Credits
Campus-wide chorus open to all interested students and faculty. Performs all types of music written for combined tenor and bass voices. Concertizes in conjunction with other university choral ensembles and in separate performances on and off campus. Members must perform a brief audition with instructor. This zero-credit option is available after registering for at least one MUSP course for credit.
Prerequisites: Concurrent enrollment in a 1-credit MUSP course.
Terms Typically Offered: Fall, Spring.

MUSP 158 Soprano/Alto Choir 1 Credit
Campus-wide chorus open to all interested students and faculty. Performs all types of music written for combined soprano and alto voices. Concertizes in conjunction with other university choral ensembles and in separate performances on and off campus. Members must perform a brief audition with instructor. For first-year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

MUSP 158Z Soprano/Alto Choir 0 Credits
Campus-wide chorus open to all interested students and faculty. Performs all types of music written for combined soprano and alto voices. Concertizes in conjunction with other university choral ensembles and in separate performances on and off campus. Members must perform a brief audition with instructor. This zero-credit option is available after registering for at least one MUSP course for credit.
Prerequisites: Concurrent enrollment in a 1-credit MUSP course.
Terms Typically Offered: Fall, Spring.

MUSP 159 Vocal Chords 1 Credit
Exploration of wide range of vocal literature. Performances given, both on and off campus. For first-year students.
Prerequisites: Permission of instructor via audition.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

MUSP 159Z Vocal Chords 0 Credits
Exploration of wide range of vocal literature. Performances given both on and off campus. This zero-credit option is available after registering for at least one MUSP course for credit.
Prerequisites: Concurrent enrollment in a 1-credit MUSP course.
Terms Typically Offered: Fall, Spring.

MUSP 162 Commercial Ensemble 1 Credit
Experience performing in a commercial music group. Repertoire is chosen from many different contemporary and classic popular music genres. For first-year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

MUSP 162Z Commercial Ensemble 0 Credits
Experience performing in a commercial music group. Repertoire is chosen from many different contemporary and classic popular music genres. This zero-credit option is available after registering for at least one MUSP course for credit.
Prerequisites: Concurrent enrollment in a 1-credit MUSP course.
Terms Typically Offered: Fall, Spring.

MUSP 238 Concert Band 1 Credit
Performance ensemble open to all students, regardless of major, with experience playing a woodwind, brass, or percussion instrument. Emphasis on developing ensemble skills through a wide variety of wind band literature. No audition required. For second-year students.
Terms Typically Offered: Spring.
Course may be taken 2 times for credit.

MUSP 240 Wind Symphony 1 Credit
Symphony comprised of serious wind and percussion students, including music majors and non-music majors, who perform a wide variety of standard and current literature. Audition with conductor required. For second-year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

MUSP 241 Symphony Orchestra 1 Credit
Ensemble designed to rehearse and perform string orchestra and symphonic literature as well as choral, opera and concerto repertoire. Audition required. For second-year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

MUSP 243 Rowdy Brass Band 1 Credit
Ambassador ensemble, training contemporary musicians to provide high-quality entertainment. Performs custom arrangements across styles, emphasizing showmanship and choreography to meet present-day music industry standards. Open by audition to brass, saxophone, electronic, and percussion students, with scholarship and professional opportunities. For second-year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

MUSP 244 Jazz Ensemble 1 Credit
Performance of a variety of styles related to the jazz idiom in large and small ensembles. For second-year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

MUSP 245 Chamber Ensembles 1 Credit
Groups organized upon the talents and interests of the members. Specified ensembles may be offered in the format brass, keyboard, percussion, string, woodwind, and vocal ensembles. For second-year students.
Prerequisites: Membership approval by the director.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

MUSP 247 Marching Band 1 Credit
Rehearsal and presentation of musical and physical performance proficiencies. Development of self-discipline, leadership, and individual and ensemble performance. Advanced practice in physical alignment, balance, endurance, flexibility, and strength in technical competency. Available to all university students. Only MUSP 147 counts as a KINA activity credit. For second-year students.
Prerequisites: Audition or consent of instructor required.
Terms Typically Offered: Fall.

MUSP 256 Vocal Arts Ensemble 1 Credit
CMU's flagship choral ensemble. Mid-sized vocal ensemble that performs choral music from all eras. Vocal Arts Ensemble performs on and off campus and on concert tours. Any student is eligible through audition. For second-year students.
Prerequisites: Successful audition with director.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

MUSP 257 Tenor/Bass Choir 1 Credit
Campus-wide chorus open to all interested students and faculty. Performs all types of music written for combined tenor and bass voices. Concertizes in conjunction with other university choral ensembles and in separate performances on-off campus. Members must perform a brief audition with instructor. For second-year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

MUSP 258 Soprano/Alto Choir 1 Credit
Campus-wide chorus open to all interested students and faculty. Performs all types of music written for combined soprano and alto voices. Concertizes in conjunction with other university choral ensembles and in separate performances on and off campus. Members must perform a brief audition with the instructor. For second-year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

MUSP 259 Vocal Chords 1 Credit
Exploration of wide range of vocal literature. Performances given, both on and off campus. For second-year students.
Prerequisites: Permission of instructor via audition.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

MUSP 262 Commercial Ensemble 1 Credit
Experience performing in a commercial music group. Repertoire is chosen from many different contemporary and classic popular music genres. For second-year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

MUSP 320 Junior Recital 1 Credit
Preparation and successful completion of junior-level recital/presentation in the student's concentration. Recital/presentation must be approved by the music faculty and given during the semester in which the student is registered for this course. Recital must include scholarly program notes covering historical aspects, analytical issues, and/or performance considerations of the recital repertory.
Terms Typically Offered: Fall, Spring.

MUSP 338 Concert Band 1 Credit
Performance ensemble open to all students, regardless of major, with experience playing a woodwind, brass, or percussion instrument. Emphasis on developing ensemble skills through a wide variety of wind band literature. No audition required. For third-year students.
Terms Typically Offered: Spring.
Course may be taken 2 times for credit.

MUSP 340 Wind Symphony 1 Credit
Symphony comprised of serious wind and percussion students, including music majors and non-music majors, who perform a wide variety of standard and current literature. Audition with conductor required. For third-year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

MUSP 341 Symphony Orchestra 1 Credit
Ensemble designed to rehearse and perform string orchestra and symphonic literature as well as choral, opera and concerto repertoire. Audition required. For third-year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

MUSP 343 Rowdy Brass Band 1 Credit
Ambassador ensemble, training contemporary musicians to provide high-quality entertainment. Performs custom arrangements across styles, emphasizing showmanship and choreography to meet present-day music industry standards. Open by audition to brass, saxophone, electronic, and percussion students, with scholarship and professional opportunities. For third-year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

MUSP 344 Jazz Ensemble 1 Credit
Performance of a variety of styles related to the jazz idiom in large and small ensembles. For third-year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

MUSP 345 Chamber Ensembles 1 Credit
Groups organized upon the talents and interests of the members. Specified ensembles may be offered in the format brass, keyboard, percussion, string, woodwind, and vocal ensembles. For third-year students.
Prerequisites: Membership approval by the director.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

MUSP 347 Marching Band 1 Credit
Rehearsal and presentation of musical and physical performance proficiencies. Development of self-discipline, leadership, and individual and ensemble performance. Advanced practice in physical alignment, balance, endurance, flexibility, and strength in technical competency. Available to all university students. Only MUSP 147 counts as a KINA activity credit. For third-year students.
Prerequisites: Audition or consent of instructor required.
Terms Typically Offered: Fall.

MUSP 356 Vocal Arts Ensemble 1 Credit
CMU's flagship choral ensemble. Medium-sized vocal ensemble that performs choral music from all eras. Vocal Arts Ensemble performs on and off campus and on concert tours. Any student is eligible through audition. For third-year students.
Prerequisites: Successful audition with director.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

MUSP 357 Tenor/Bass Choir 1 Credit
Campus-wide chorus open to all interested students and faculty. Performs all types of music written for combined tenor and bass voices. Concertizes in conjunction with other university choral ensembles and in separate performances on-off campus. Members must perform a brief audition with instructor. For third-year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

MUSP 358 Soprano/Alto Choir 1 Credit
Campus-wide choir open to all interested students and faculty. Performs all types of music written for combined soprano and alto voices. Concertizes in conjunction with other university choral ensembles and in separate performances on and off campus. Members must perform a brief audition with instructor. For third-year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

MUSP 359 Vocal Chords 1 Credit
Exploration of wide range of vocal literature. Performances given, both on and off campus. For third-year students.
Prerequisites: Permission of instructor via audition.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

MUSP 362 Commercial Ensemble 1 Credit
Experience performing in a commercial music group. Repertoire is chosen from many different contemporary and classic popular music genres. For third-year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 2 times for credit.

MUSP 365 Vocal Performance Workshop 1 Credit
Development of vocal performance skills for majors and minors within a musical and theatrical workshop. Performance repertoire selected for class study. Stage movement, stage presence, character study, audition techniques, resume construction, and mock auditions incorporated.
Terms Typically Offered: Fall.
Course may be taken 2 times for credit.

MUSP 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

MUSP 396 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

MUSP 420 Senior Recital/Presentation 1 Credit
Preparation and completion of senior-level recital/presentation, given during the semester of this course. Recital must include scholarly program notes covering historical aspects, analytical issues, and/or performance considerations of the recital repertory. Liberal Arts or Elective Studies in Business students may elect to give a faculty-approved "capstone presentation" (e.g., lecture/recital; lecture/demonstration; or other presentation of creative work).
Terms Typically Offered: Fall, Spring.

MUSP 438 Concert Band 1 Credit
Performance ensemble open to all students, regardless of major, with experience playing a woodwind, brass, or percussion instrument. Emphasis on developing ensemble skills through a wide variety of wind band literature. No audition required. For fourth-year students.
Terms Typically Offered: Spring.
Course may be taken 4 times for credit.

MUSP 440 Wind Symphony 1 Credit
Symphony comprised of serious wind and percussion students, including music majors and non-music majors, who perform a wide variety of standard and current literature. Audition with conductor required. For fourth-year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 4 times for credit.

MUSP 441 Symphony Orchestra 1 Credit
Ensemble designed to rehearse and perform string orchestra and symphonic literature as well as choral, opera and concerto repertoire. Audition required. For fourth-year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 4 times for credit.

MUSP 443 Rowdy Brass Band 1 Credit
Ambassador ensemble, training contemporary musicians to provide high-quality entertainment. Performs custom arrangements across styles, emphasizing showmanship and choreography to meet present-day music industry standards. Open by audition to brass, saxophone, electronic, and percussion students, with scholarship and professional opportunities. For fourth-year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 4 times for credit.

MUSP 444 Jazz Ensemble 1 Credit
Performance of a variety of styles related to the jazz idiom in large and small ensembles. For fourth-year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 4 times for credit.

MUSP 445 Chamber Ensembles 1 Credit
Groups organized upon the talents and interests of the members. Specified ensembles may be offered in the format brass, keyboard, percussion, string, woodwind, and vocal ensembles. For fourth-year students.
Prerequisites: Membership approval by the director.
Terms Typically Offered: Fall, Spring.
Course may be taken 4 times for credit.

MUSP 447 Marching Band 1 Credit
Rehearsal and presentation of musical and physical performance proficiencies. Development of self-discipline, leadership, and individual and ensemble performance. Advanced practice in physical alignment, balance, endurance, flexibility, and strength in technical competency. Available to all university students. Only MUSP 147 counts as a KINA activity credit. For fourth-year students.
Prerequisites: Audition or consent of instructor required.
Terms Typically Offered: Fall.
Course may be taken 4 times for credit.

MUSP 456 Vocal Arts Ensemble 1 Credit
CMU's flagship choral ensemble. Medium-sized vocal ensemble that performs choral music from all eras. Vocal Arts Ensemble performs on and off campus and on concert tours. Any student is eligible through audition. For fourth-year students.
Prerequisites: Successful audition with director.
Terms Typically Offered: Fall, Spring.
Course may be taken 4 times for credit.

MUSP 457 Tenor/Bass Choir 1 Credit
Campus-wide chorus open to all interested students and faculty. Performs all types of music written for combined tenor and bass voices. Concertizes in conjunction with other university choral ensembles and in separate performances on-off campus. Members must perform a brief audition with instructor. For fourth-year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 4 times for credit.

MUSP 458 Soprano/Alto Choir 1 Credit
Campus-wide chorus open to all interested students and faculty. Performs all types of music written for combined soprano and alto voices. Concertizes in conjunction with other university choral ensembles and in separate performances on and off campus. Members must perform a brief audition with instructor. For fourth-year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 4 times for credit.

MUSP 459 Vocal Chords 1 Credit
Exploration of wide range of vocal literature. Performances given, both on and off campus. For fourth-year students.
Prerequisites: Permission of instructor via audition.
Terms Typically Offered: Fall, Spring.
Course may be taken 4 times for credit.

MUSP 462 Commercial Ensemble 1 Credit
Experience performing in a commercial music group. Repertoire is chosen from many different contemporary and classic popular music genres. For fourth-year students.
Terms Typically Offered: Fall, Spring.
Course may be taken 4 times for credit.

MUSP 465 Opera Scenes 1 Credit
Continuation of artistic and technical skills introduced in MUSP 365. Focus on operatic production of staged, public performance of either selected opera scenes or a one or two-act opera.
Prerequisites: Completion of Sophomore Review or instructor approval.
Corequisites: MUSL 437 or permission of instructor.
Course may be taken 4 times for credit.

MUSP 495 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

MUSP 496 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Nurse Aide Training (NURA)

Courses

NURA 101 Nurse Aide Healthcare Skills 4 Credits
Fundamental skills of the nurse aide. Basic nursing skills, communication skills, restorative services, personal care skills, safety, and emergency care covered. Includes knowledge and/or principles of asepsis, OSHA and HIPAA regulations. Ethical behaviors, cultural sensitivity, principles of mental health, and patient/resident rights addressed.
Terms Typically Offered: Fall, Spring, Summer.
Fees: Yes.

NURA 170 Nurse Aide Clinical Experience 1 Credit
Application of knowledge and skill gained in NURA 101 to patient care. Independent functioning within the nurse aide scope of practice in applying knowledge and skills gained in Nurse Aide Healthcare Skills. Enhanced communication, cultural competency, end of life care, critical thinking, and organizational skills emphasized.
Prerequisites: NURA 101.
Terms Typically Offered: Fall, Spring, Summer.

NURA 180 Certified Nurse Aide Exam Prep 1 Credit
Further mastery of the textbook and skills associated with the CNA workforce.
Prerequisites: NURA 101 and NURA 170.
Terms Typically Offered: Fall, Spring.

NURA 196 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Nursing (NURS)

Courses

NURS 101 Pharmacology Calculations 1 Credit
Introduction to concepts and techniques of dosage calculations and medication administration by a variety or routes. Application of basic math concepts to complex conversion of dosages between and among various systems of weights and volumes, and application of critical thinking skills to the calculation and administration of medications by oral and parenteral (including intravenous) routes of administration.
Prerequisites: Admission into the Practical Nursing certificate program.
Corequisites: NURS 106/NURS 106L, NURS 107/NURS 107L and NURS 112.
Terms Typically Offered: Fall.
Fees: Yes.

NURS 106 Adult Concepts I 3 Credits
Application of nursing concepts, skills, critical thinking, and assessment in caring for a variety of clients in various health care settings.
Prerequisites: Admission into the Practical Nursing certificate program.
Corequisites: NURS 101, NURS 106L, NURS 107/NURS 107L, and NURS 112.
Terms Typically Offered: Fall.
Fees: Yes.

NURS 106L Adult Concepts I Laboratory 2 Credits
Application of nursing concepts, skills, critical thinking, and assessment in caring for a variety of clients in various health care settings.
Prerequisites: Admission into the Practical Nursing certificate program.
Corequisites: NURS 101, NURS 106, NURS 107/NURS 107L, and NURS 112.
Terms Typically Offered: Fall.
Fees: Yes.

NURS 107 Foundations of Nursing 3 Credits
Exploration of basic nursing concepts and skills to develop critical thinking while utilizing the nursing process.
Prerequisites: Admission into the Practical Nursing certificate program.
Corequisites: NURS 101, NURS 106/NURS 106L, NURS 107L, and NURS 112.
Terms Typically Offered: Fall.
Fees: Yes.

NURS 107L Foundations of Nursing Laboratory 3 Credits
Application of basic nursing and IV certification skills through training, practice, and checkoffs of essential skills needed for safe practice.
Prerequisites: Admission into the Practical Nursing certificate program.
Corequisites: NURS 101, NURS 106/NURS 106L, NURS 107, and NURS 112.
Terms Typically Offered: Fall.
Fees: Yes.

NURS 109 Introduction to Mental Health 2 Credits
Introduction to complex concepts and behaviors of nursing roles within the cohort of the nursing process, holistic care, and mental health care. Emphasizes theoretical and practical aspects of the mental health nursing skills required to meet the needs of clients in a variety of settings.
Prerequisites: NURS 101, NURS 106/NURS 106L, NURS 107/NURS 107L, and NURS 112.
Corequisites: NURS 109L, NURS 117/NURS 117L, NURS 156, and NURS 172/NURS 172L.
Terms Typically Offered: Spring.
Fees: Yes.

NURS 109L Introduction to Mental Health Laboratory 1 Credit
Introduction to complex concepts and behaviors of nursing roles within the cohort of the nursing process, holistic care, and mental health care. Emphasizes theoretical and practical aspects of the mental health nursing skills required to meet the needs of clients in a variety of settings.
Prerequisites: NURS 101, NURS 106/NURS 106L, NURS 107/NURS 107L, and NURS 112.
Corequisites: NURS 109, NURS 117/NURS 117L, NURS 156, and NURS 172/NURS 172L.
Terms Typically Offered: Spring.
Fees: Yes.

NURS 112 Basic Concepts of Pharmacology 3 Credits
Introduction to basic concepts of pharmacology related to the actions, therapeutic and adverse effects, interactions of drugs, drug classifications, and the basic pharmacology of commonly used medications. Emphasis is placed on nursing considerations and client education.
Prerequisites: Admission into the Practical Nursing certificate program.
Corequisites: NURS 101, NURS 106/NURS 106L, and NURS 107/NURS 107L.
Terms Typically Offered: Fall.
Fees: Yes.

NURS 117 Obstetrics and Pediatrics 3 Credits
Exploration of fundamental content in the nursing care of the childbearing family, which focuses on pregnancy, physiologic and psychological changes experienced, and care of the normal newborn. Includes the individual needs of the child from infancy through adolescence, focusing on developmental stages, as well as childhood diseases and illness within each stage.
Prerequisites: NURS 101, NURS 106/NURS 106L, NURS 107/NURS 107L, and NURS 112.
Corequisites: NURS 109/NURS 109L, NURS 117L, NURS 156, and NURS 172/NURS 172L.
Terms Typically Offered: Spring.
Fees: Yes.

NURS 117L Obstetrics and Pediatrics Laboratory 2 Credits
Application of concepts related to pregnancy, newborns, and children from infancy to adolescence utilizing critical thinking, nursing process, and assessment in caring for this population within the various health care settings.
Prerequisites: NURS 101, NURS 106/NURS 106L, NURS 107/NURS 107L, and NURS 112.
Corequisites: NURS 109/NURS 109L, NURS 117, NURS 156, and NURS 172/NURS 172L.
Terms Typically Offered: Spring.
Fees: Yes.

NURS 156 Socialization into Practical Nursing 2 Credits
Examination of legal and ethical responsibilities of the practical nurse. Emphasis is given to the Colorado Nurse Practice Act, career development, and preparing for the NCLEX PN exam.
Prerequisites: NURS 101, NURS 106/NURS 106L, NURS 107/NURS 107L, and NURS 112.
Corequisites: NURS 109/NURS 109L, NURS 117/NURS 117L, and NURS 172/NURS 172L.
Terms Typically Offered: Spring.
Fees: Yes.

NURS 172 Adult Concepts II 3 Credits
Application of clinical practicum to apply nursing theory in medical surgical nursing using the nursing process to assist clients with more complex health care needs.
Prerequisites: NURS 101, NURS 106/NURS 106L, NURS 107/NURS 107L, and NURS 112.
Corequisites: NURS 109/NURS 109L, NURS 117/NURS 117L, NURS 156, and NURS 172L.
Terms Typically Offered: Spring.
Fees: Yes.

NURS 172L Adult Concepts II Lab 3 Credits
Application of clinical practicum to apply nursing theory in medical surgical nursing using the nursing process to assist clients with more complex health care needs.
Prerequisites: NURS 101, NURS 106/NURS 106L, NURS 107/NURS 107L, and NURS 112.
Corequisites: NURS 109/NURS 109L, NURS 117/NURS 117L, NURS 156, and NURS 172.
Terms Typically Offered: Spring.
Fees: Yes.

NURS 200 LPN to RN Role Transition 1 Credit
Prepares the advanced placement student to enter the Nursing Program through orientation to the program, review of the nursing process and exploration of the role change from practical to professional nursing. Introduction to selected concepts related to the role of the Associate Degree nurse as a provider of care, teacher, manager, client advocate and member of the profession. Emphasis placed on critical thinking in providing and managing comprehensive care in a variety of health care settings with clients across the lifespan. Course is designed to assist the Licensed Practical Nurse with the transition into the practice of professional nursing.
Prerequisites: All essential learning education and program prerequisites.

NURS 206 Advanced Concepts of Medical-Surgical Nursing I 3 Credits
Role of the registered professional nurse as care provider, teacher, manager, professional and advocate in meeting the nursing care needs of adults across the life span experiencing illness to wellness. The clinical lab provides opportunity for the student to utilize the nursing process and integrate previous learning to assist the patient and family in achieving optimal functioning in the various health care settings.
Corequisites: NURS 206L and NURS 288.

NURS 206L Advanced Concepts of Medical-Surgical Nursing Laboratory 2 Credits
Lab component required for NURS 206.
Corequisites: NURS 206 and NURS 288.

NURS 210 Nursing Care of Complex Obstetrical and Pediatric Clients 3 Credits
[AAS Program only] Prepares the professional nurse to comprehend and apply advanced concepts in care of the high-risk child bearing family and for children with complex health problems from birth through adolescence. Emphasizes special needs and complications during the perinatal experience and altered functioning, special needs, and disease processes manifested in children. The nursing process is used as a framework to attain optimal levels of maternal-newborn and pediatric health and wellness. Legal and ethical accountability are integrated throughout the course. Critical thinking skills are utilized throughout.
Prerequisites: All general education and prerequisites, NURS 288 and NURS 200.
Corequisites: NURS 210L

NURS 210L Nursing Care of Complex Obstetrical and Pediatric Clients Laboratory 1 Credit
Prepares the professional nurse to comprehend and apply advanced concepts in the care of the high-risk child bearing family and for children with complex health problems from birth through adolescence. Emphasizes special needs and complications during the prenatal experience and altered functioning, special needs and disease process manifested in children. The nursing process is used as a framework to attain optimal levels of maternal-newborn and pediatric health and wellness. Legal and ethical accountability and critical thinking skills are integrated throughout the course. Theoretical content is applied in acute care and community clinical settings.
Prerequisites: NURS 200, NURS 206/NURS 206L, NURS 211/NURS 211L, NURS 286, and NURS 288.
Corequisites: NURS 210, NURS 216/NURS 216L, and NURS 289.

NURS 211 Nursing Care of the Psychiatric Client 3 Credits
Develops concepts of psychosocial integrity and emphasizes the function and responsibility of nursing in promoting and maintaining mental health of individuals and families. This course emphasizes communication and caring through the application of the therapeutic relationship and nursing process in the care and treatment of common clinical conditions/disorders. In the clinical lab students will develop proficiency in working with psychiatric clients in various settings in the community.
Prerequisites: NURS 200 and NURS 288.
Corequisites: NURS 211L.

NURS 211L Nursing Care of the Psychiatric Client Laboratory 1 Credit
Lab component required for NURS 211.
Prerequisites: NURS 200, NURS 206/NURS 206L, NURS 286, and NURS 288.
Corequisites: NURS 211 and NURS 217.

NURS 216 Advanced Concepts of Medical Surgical Nursing II 2 Credits
[AAS Program only] Continues to focus on the role of the registered professional nurse as care provider, teacher, manager, professional, and advocate in meeting the complex medical and surgical health care needs of adult clients. Utilizing the nursing process, the student is expected to integrate previous learning to assist the patient and family in achieving optimal functioning in various complex health care situations and settings.
Prerequisites: All essential learning and prerequisites, NURS 206/NURS 206L, NURS 288, and NURS 200.
Corequisites: NURS 216L.

NURS 216L Advanced Concepts of Medical Surgical Nursing II Laboratory 3 Credits
Continues to focus on the role of the registered professional nurse as care provider, teacher, manager, professional, and advocate in meeting the complex medical and surgical health care needs of adult clients. Utilizing the nursing process, the student is expected to integrate previous learning to assist the patient and family in achieving optimal functioning in various complex health care situations and settings. In addition to inpatient acute care patient units the student will rotate through the critical care areas of the health care facility.
Prerequisites: NURS 200, NURS 206/NURS 206L, NURS 211/NURS 211L, NURS 217, NURS 286, and NURS 288.
Corequisites: NURS 210/NURS 210L, NURS 216, and NURS 289.

NURS 217 Leadership for Professional Nursing Practice 2 Credits
[AAS Program only] Socializes the student into the graduate registered nurse role. The focus is on the exploration and analysis of contemporary nursing practice, current trends and issues impacting nursing care delivery. Advanced leadership and management concepts are discussed as part of the nursing role.
Prerequisites: All essential learning and prerequisites, and NURS 200.

NURS 244 Introduction to Adult Concepts of Health 2 Credits
Introduction of nursing concepts, skills, and assessment in caring for adult clients in various health care settings.
Prerequisites: Admission into the Associate of Applied Sciences in Nursing program.
Corequisites: NURS 244L, NURS 246, and NURS 247/NURS 247L.
Terms Typically Offered: Fall.
Fees: Yes.

NURS 244L Introduction to Adult Concepts of Health Laboratory 2 Credits
Introduction of nursing concepts, skills, and assessment in caring for adult clients in various health care settings.
Prerequisites: Admission into the Associate of Applied Sciences in Nursing program.
Corequisites: NURS 244, NURS 246, and NURS 247/NURS 247L.
Terms Typically Offered: Fall.
Fees: Yes.

NURS 246 Pharmacological Concepts I 3 Credits
Introduction to basic pharmacology concepts, which include interactions, classification, adverse effects, drug dosages and math calculations.
Prerequisites: Admission into the Associate of Applied Science in Nursing program.
Corequisites: NURS 244/NURS 244L, and NURS 247/NURS 247L.
Terms Typically Offered: Fall.
Fees: Yes.

NURS 247 Fundamentals of Nursing 3 Credits
Exploration of nursing concepts and skills utilized in the nursing process to develop critical thinking. Application of essential nursing skills including IV skills for safe practice.
Prerequisites: Admission into the Associate of Applied Science in Nursing program.
Corequisites: NURS 244/NURS 244L, NURS 246, and NURS 247L.
Terms Typically Offered: Fall.
Fees: Yes.

NURS 247L Fundamentals of Nursing Laboratory 2 Credits
Lab component required for NURS 247.
Prerequisites: Admission into the Associate of Applied Sciences in Nursing program.
Corequisites: NURS 244/NURS 244L, NURS 246, and NURS 247.
Terms Typically Offered: Fall.
Fees: Yes.

NURS 248 Adult Concepts of Health I 3 Credits
Exploration of the role of the registered nurse as a care provider, teacher, manager, professional, and advocate. Explores disease processes in adults.
Prerequisites: NURS 244/NURS 244L, NURS 246, and NURS 247/NURS 247L.
Corequisites: NURS 248L, NURS 250/NURS 250L, and NURS 252/NURS 252L.
Terms Typically Offered: Spring.
Fees: Yes.

NURS 248L Adult Concepts of Health I Laboratory 3 Credits
Exploration of the role of the registered nurse as a care provider, teacher, manager, professional, and advocate. Explores disease processes in adults.
Prerequisites: NURS 244/NURS 244L, NURS 246, and NURS 247/NURS 247L.
Corequisites: NURS 248, NURS 250/NURS 250L, and NURS 252/NURS 252L.
Terms Typically Offered: Spring.
Fees: Yes.

NURS 249 Pharmacological Concepts II 3 Credits
Integration of concepts in pharmacology, with a focus on high risk medications, drug calculations, and teaching.
Prerequisites: NURS 251/NURS 251L and NURS 253/NURS 253L.
Corequisites: NURS 255/NURS 255L and NURS 256/NURS 256L.
Terms Typically Offered: Spring.
Fees: Yes.

NURS 250 Health Assessment for Nurses 3 Credits
Acquisition of knowledge and skills necessary for completing health assessment across the life span.
Prerequisites: NURS 244/NURS 244L, NURS 246, and NURS 247/NURS 247L.
Corequisites: NURS 248/NURS 248L, NURS 250L, and NURS 252/NURS 252L.
Terms Typically Offered: Spring.
Fees: Yes.

NURS 250L Health Assessment for Nurses Laboratory 1 Credit
Acquisition of knowledge and skills necessary for completing health assessment across the life span.
Prerequisites: NURS 244/NURS 244L, NURS 246, and NURS 247/NURS 247L.
Corequisites: NURS 248/NURS 248L, NURS 250, and NURS 252/NURS 252L.
Terms Typically Offered: Spring.
Fees: Yes.

NURS 251 Adult Concepts of Health II 3 Credits
Continuation of study to meet the needs of higher level acuity patients and evaluating optimal healthcare outcomes. Students incorporate evidence-based care and apply clinical reasoning, while developing additional practice and skills in organizing and prioritizing patient care more effectively.
Prerequisites: NURS 248/NURS 248L, NURS 250/NURS 250L, and NURS 252/NURS 252L.
Corequisites: NURS 251L and NURS 253/NURS 253L.
Terms Typically Offered: Fall.
Fees: Yes.

NURS 251L Adult Concepts of Health II Laboratory 3 Credits
Continuation of study to meet the needs of higher level acuity patients and evaluating optimal healthcare outcomes. Students incorporate evidence-based care and apply clinical reasoning, while developing additional practice and skills in organizing and prioritizing patient care more effectively.
Prerequisites: NURS 248/NURS 248L, NURS 250/NURS 250L, and NURS 252/NURS 252L.
Corequisites: NURS 251 and NURS 253/NURS 253L.
Terms Typically Offered: Fall.
Fees: Yes.

NURS 252 Mental Health Concepts in Nursing 2 Credits
Exploration of psychosocial concepts, with a focus on maintaining mental health of the community, individual, and family.
Prerequisites: NURS 244/NURS 244L, NURS 246, and NURS 247/NURS 247L.
Corequisites: NURS 248/NURS 248L and NURS 250/NURS 250L.
Terms Typically Offered: Spring.
Fees: Yes.

NURS 252L Mental Health Concepts in Nursing Laboratory 2 Credits
Exploration of psychosocial concepts, with a focus on maintaining mental health of the community, individual, and family.
Prerequisites: NURS 244/NURS 244L, NURS 246, and NURS 247/NURS 247L.
Corequisites: NURS 248/NURS 248L and NURS 250/NURS 250L.
Terms Typically Offered: Spring.
Fees: Yes.

NURS 253 Family Nursing Obstetrics and Pediatrics 4 Credits
Exploration of family health, with particular focus on pregnant women and the developmental health of infants, children, and adolescents.
Prerequisites: NURS 248/NURS 248L, NURS 250/NURS 250L, and NURS 252/NURS 252L.
Corequisites: NURS 251/NURS 251L and NURS 253L.
Terms Typically Offered: Fall.
Fees: Yes.

NURS 253L Family Nursing Obstetrics and Pediatrics Laboratory 2 Credits
Exploration of family health, with particular focus on pregnant women and the developmental health of infants, children, and adolescents.
Prerequisites: NURS 248/NURS 248L, NURS 250/NURS 250L, and NURS 252/NURS 252L.
Corequisites: NURS 251/NURS 251L and NURS 253.
Terms Typically Offered: Fall.
Fees: Yes.

NURS 255 Adult Concepts of Health III 3 Credits
Exploration of critical care needs of adult patients. Previous knowledge is integrated throughout to assist with optimal functioning in various complex health care situations.
Prerequisites: NURS 251/NURS 251L and NURS 253/NURS 253L.
Corequisites: NURS 249, NURS 255L, and NURS 256/NURS 256L.
Terms Typically Offered: Spring.
Fees: Yes.

NURS 255L Adult Concepts of Health III Laboratory 3 Credits
Exploration of critical care needs of adult patients. Previous knowledge is integrated throughout to assist with optimal functioning in various complex health care situations.
Prerequisites: NURS 251/NURS 251L, and NURS 253/NURS 253L.
Corequisites: NURS 249, NURS 255, and NURS 256/NURS 256L.
Terms Typically Offered: Spring.
Fees: Yes.

NURS 256 Capstone 1 Credit
Exploration of the physiological and psychosocial factors that contribute to altered health states and their impact on patients and their families. Emphasis is on the application of the nursing process and refinement of clinical skills. Students gain experience in working with patients in acute care settings, as well as working with the families of acutely ill individuals.
Prerequisites: NURS 251/NURS 251L, and NURS 253/NURS 253L.
Corequisites: NURS 249, NURS 255/NURS 255L, and NURS 256L.
Terms Typically Offered: Spring.
Fees: Yes.

NURS 256L Capstone Laboratory 2 Credits
Exploration of the physiological and psychosocial factors that contribute to altered health states and their impact on patients and their families. Emphasis is on the application of the nursing process and refinement of clinical skills. Students gain experience in working with patients in acute care settings as well as working with the families of acutely ill individuals.
Prerequisites: NURS 251/NURS 251L, and NURS 253/NURS 253L.
Corequisites: NURS 249, NURS 255/NURS 255L, and NURS 256.
Terms Typically Offered: Spring.
Fees: Yes.

NURS 286 Advanced Pharmacology for Nurses 2 Credits
Focuses on advanced concepts of pharmacology within nursing with an emphasis on nursing process, drug doses, calculations and relevant assessments and patient teaching.
Prerequisites: LPN license.
Corequisites: NURS 200, NURS 206/NURS 206L, and NURS 288.

NURS 288 Health and Physical Assessment for Nursing 2 Credits
[AAS Program only] Development of the knowledge necessary for completing health assessment across the life span. History taking, physical assessment skills, and principles of health promotion are utilized to develop appropriate interventions designed to assist clients with health promotion and life style changes.
Prerequisites: All essential learning and prerequisites.
Corequisites: NURS 206 and NURS 200.

NURS 289 Capstone: Comprehensive Nursing Internship 2 Credits
Facilitates transition from student to graduate nurse through application of nursing principles and skills in an area of health care delivery. Critical thinking, life long learning, nursing process, caring, collaboration, and health teaching and promotion are emphasized.
Prerequisites: All prerequisites for the AAS program, NURS 200, NURS 206/NURS 206L, NURS 211/NURS 211L, NURS 217, NURS 286, NURS 288.
Corequisites: NURS 210/NURS 210L and NURS 216/NURS 216L.

NURS 300 Developing the Baccalaureate Role 3 Credits
Introduction to baccalaureate role development for the professional nurse in current issues, nursing theory and philosophy, leadership and management skills, and legal and ethical behaviors in the practice setting. Skills associated with the impact of change to promote patient safety and collaboration in nursing and healthcare will be explored.
Prerequisites: Admission to the RN-BSN Program.
Terms Typically Offered: Fall, Spring, Summer.

NURS 318 Health Assessment and Promotion 3 Credits
Development of knowledge necessary for completing health assessment using a holistic approach. History taking, physical assessment skills, and principles of health promotion are utilized to develop appropriate interventions designed to assist clients with health promotion, prevention, and anticipatory guidance over the life span.
Prerequisites: Admission to the LPN-BSN program.
Corequisites: NURS 318L, NURS 329/NURS 329L, NURS 333, and NURS 400.
Terms Typically Offered: Spring.
Fees: Yes.

NURS 318L Health Assessment and Promotion Laboratory 1 Credit
Application of techniques necessary for completing health assessments across the life span, including history taking, physical assessment skills, and principles of health promotion. Apply appropriate interventions to assist clients with health promotion, prevention, and lifestyle changes.
Prerequisites: Admission to the LPN-BSN Program.
Corequisites: NURS 318, NURS 329/NURS 329L, NURS 333, and NURS 400.
Terms Typically Offered: Spring.
Fees: Yes.

NURS 320 Health Assessment and Promotion for the Nurse 3 Credits
Application of professional knowledge, skills, and attitudes necessary for completing child, adult, and geriatric client health assessments. Utilization of information from a physical assessment to develop appropriate interventions to assist clients with health promotion and lifestyle changes. Application of principles for health promotion through the life span in a variety of settings is emphasized.
Prerequisites: Admission to the RN-BSN Program or practicing RN with current license and permission of instructor.
Corequisites: NURS 320L.
Terms Typically Offered: Fall, Spring, Summer.

NURS 320L Health Assessment and Promotion for the Nurse Laboratory 1 Credit
Application of knowledge necessary to complete child, adult, and geriatric client health assessments. Focus on history taking and physical assessment skills to develop appropriate interventions designed to assist clients with health promotion and lifestyle changes. Integration of health promotion principles throughout the life span in various settings will be emphasized.
Prerequisites: Admission into RN-BSN program or practicing RN with current license and permission of instructor.
Corequisites: NURS 320.
Terms Typically Offered: Fall, Spring, Summer.

NURS 329 Adult Health 4 Credits
Exploration of the registered professional nurse as care provider, teacher, manager, professional, and advocate in meeting the nursing care needs of adult clients to achieve optimal functioning within various clinical settings. Emphasis on critical thinking skills, communication, the nursing process, prioritization, and teaching/learning strategies related to diverse adult clients with various health conditions.
Prerequisites: Admission into the LPN-BSN Program.
Corequisites: NURS 318/NURS 318L, NURS 329L, NURS 333, and NURS 400.
Terms Typically Offered: Spring.
Fees: Yes.

NURS 329L Adult Health Clinical 3 Credits
Utilization of critical thinking and clinical judgement throughout the nursing process. Integrates previous learning to assist clients and families in achieving optimal functioning in various health care settings. Focusing on the role of the professional registered nurse as a care provider, teacher, manager, professional, and advocate to meet the nursing needs of diverse adult populations in clinical settings.
Prerequisites: Admission to the LPN-BSN program.
Corequisites: NURS 318/NURS 318L, NURS 329, NURS 333, and NURS 400.
Terms Typically Offered: Spring.
Fees: Yes.

NURS 333 Pharmacology for the RN 2 Credits
Exploration of concepts of advanced pharmacology for a variety of body systems and disorders. Emphasis on making clinical decisions for patients related to safe medication administration, potential complications, complex dosage calculations, relevant assessments, effective treatments, and accurate client teaching.
Prerequisites: Admission into the LPN-BSN program.
Corequisites: NURS 318/NURS 318L, NURS 329/NURS 329L, and NURS 400.
Terms Typically Offered: Spring.
Fees: Yes.

NURS 350 Health Assessment Across the Lifespan 3 Credits
Introduction to the basic skills of history taking and physical assessment of individuals across the lifespan, with a focus on the well adult. Emphasis on knowledge, skills, and attitudes necessary for conducting and documenting a systematic or focused health assessment.
Prerequisites: Admission to the BSN program.
Corequisites: NURS 350L, NURS 353/NURS 353L, NURS 370, and NURS 372.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

NURS 350L Health Assessment Across the Lifespan Laboratory 1 Credit
Application of the basic skills of history taking, physical assessment of individuals, and documentation, with a focus on the adult client. Communication and assessment skills are developed. Students obtain health histories, perform physical and psychosocial assessments, establish a database, and formulate initial nursing plans using the nursing process.
Prerequisites: Admission to the BSN program.
Corequisites: NURS 350, NURS 353/NURS 353L, NURS 370, and NURS 372.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

NURS 353 Foundation of Nursing Practice 4 Credits
Introduction to the fundamentals of nursing practice and the knowledge required to implement patient-centered care through the lifespan in a variety of settings. Focus is on evidence-based practice, safety, concepts basic to nursing care, the nursing process, communication, and quality care.
Prerequisites: Admission to the BSN program.
Corequisites: NURS 350/NURS 350L, NURS 353L, NURS 370, and NURS 372.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

NURS 353L Foundations of Nursing Practice Laboratory 3 Credits
Application of fundamental concepts and evidenced based nursing skills in a variety of settings. Emphasis on performing basic nursing skills, documentation, and professional development as a student nurse. Focus is on providing safe care for diverse adult populations.
Prerequisites: Admission to the BSN program.
Corequisites: NURS 350/NURS 350L, NURS 353, NURS 370, and NURS 372.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

NURS 370 Pharmacology for Nurses I 3 Credits
Introduction to the principles of pharmacokinetics, pharmacodynamics, and safe medication administration. Focus on the nursing process for various drug therapy circumstances and populations.
Prerequisites: Admission to the BSN program.
Corequisites: NURS 350/NURS 350L, NURS 353/NURS 353L, and NURS 372.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

NURS 372 Professional Development I: Nursing Theory, Roles and Ethics 2 Credits
Introduction to knowledge, skills, and attitudes related to nursing practice. Exploration of nursing history, theory, legal, ethical, and patient safety issues related to the professional nursing role. Emphasis on critical thinking, patient advocacy, evidence-based practice, time-management, bias, caring, and development of the professional nurse.
Prerequisites: Admission to the BSN program.
Corequisites: NURS 350/NURS 350L, NURS 353/NURS 353L, and NURS 370.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

NURS 373 Acute and Chronic Illness I 4 Credits
Application of the nursing process in the care of adult patients experiencing acute and chronic medical-surgical conditions, while advocating for patients' individual needs. Emphasis on pathophysiology, treatment, prevention of disease, and the use of evidence-based practice, clinical reasoning, and critical thinking skills. Cultural, spiritual, and psychosocial influences and safety are considered in the care of diverse patient populations.
Prerequisites: Admission to the BSN program.
Corequisites: NURS 373L, NURS 388/NURS 388L, and NURS 394.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

NURS 373L Acute and Chronic Illness I Clinical 4 Credits
Application of the nursing process to care for adults experiencing medical-surgical conditions in acute and chronic healthcare settings. Emphasis on factors influencing individual client responses to illness and treatment. Development of critical thinking, clinical reasoning, and the utilization of evidence-based practice to understand health promotion and disease/injury prevention concepts to provide safe, competent, and ethical care.
Prerequisites: Admission to the BSN program.
Corequisites: NURS 373, NURS 388/NURS 388L, and NURS 394.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

NURS 388 Mental Health Nursing 3 Credits
Introduction to inclusive, patient-centered approaches to meet the needs of individuals, families, and groups experiencing alterations in mental health across the lifespan. Emphasis on theoretical knowledge to promote, maintain, and recover mental and emotional health using evidence-based practice. Exploration of use of self as a therapeutic tool and the principles of therapeutic relationships to promote optimal client outcomes.
Prerequisites: Admission to the BSN program.
Corequisites: NURS 373/NURS 373L, NURS 388L, and NURS 394.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

NURS 388L Mental Health Nursing Clinical 2 Credits
Application of theory to identify and maximize mental health outcomes of clients with a variety of mental health disorders. Emphasis on the nurse's role in various treatment settings. Utilizing an inclusive, interdisciplinary approach with clients. Development of proficiency in mental health care and education with diverse populations. Application of the safe therapeutic use of self with mental health clients.
Prerequisites: Admission to the BSN program.
Corequisites: NURS 373/NURS 373L, NURS 388, and NURS 394.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

NURS 394 Nursing Research: An Evidence-Based Practice 2 Credits
Exploration of research practice in scholarly inquiry in health care. Examination of research methodologies and related theories to develop a literature review and an evidence-based practice proposal to investigate nursing questions and outcomes. Emphasis on research as a basis for assessment of health promotion and health care interventions.
Prerequisites: Admission to the BSN program.
Corequisites: NURS 373/NURS 373L and NURS 388/NURS 388L.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

NURS 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

NURS 396 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

NURS 400 Nursing Research 3 Credits
Exploration of evidence-based practices within health care as it relates to nurses and client outcomes.
Prerequisites: Admission to the LPN-BSN program.
Corequisites: NURS 318/NURS 318L, NURS 329/NURS 329L, and NURS 333.
Terms Typically Offered: Spring.
Fees: Yes.

NURS 408 Health Information Systems 3 Credits
Introduction to information systems in health care and nursing practice. Exploration of legal and ethical issues, management, and social networking tools in communicating health-related information. Emphasis on current trends and issues in using, designing, and implementing health care information systems, healthcare information management, decision support, and knowledge management applications.
Prerequisites: Admission to the RN to BSN program.
Terms Typically Offered: Fall, Spring.

NURS 409 Quality Assessment and Improvement in Health Care Settings 3 Credits
Review of outcomes-based quality assessment and improvement methods. Implementation of quality management programs and creating a culture supporting adherence to best practices and standards. Emphasis on healthcare quality improvement to ensure client safety.
Prerequisites: Admission to the RN to BSN program.
Terms Typically Offered: Fall, Spring, Summer.

NURS 410 Population Health Nursing 3 Credits
Exploration of theoretical basis for community and population health and the role of the nurse. Includes microsystems, applications of transitions of care, financing concepts in the community setting, and analysis of the health of populations. Emphasis on health promotion, disease prevention, using epidemiology, environmental health, health policy, aggregates, systems, populations, community assessment, and community interventions.
Prerequisites: NURS 320/NURS 320L.
Corequisites: NURS 410L.
Terms Typically Offered: Fall, Spring.

NURS 410L Population Health Nursing Laboratory 1 Credit
Application of theory in practice with diverse populations and aggregates in the community to achieve an optimum level of wellness. Emphasis on health disparities, cultural diversity, social justice, and health laws and policies related to population vulnerability throughout the life course. Exploration of the continuum of outpatient care in home health and collaboration with community services.
Prerequisites: NURS 320/NURS 320L.
Corequisites: NURS 410.
Terms Typically Offered: Fall, Spring.

NURS 415 Business of Health Care 2 Credits
Appraisal of financial indicators on impact of health outcomes explored in the context of the professional's ability to provide quality care to a diverse patient population.
Prerequisites: NURS 403/NURS 403L, NURS 406/NURS 406L, and NURS 407.
Corequisites: NURS 411/NURS 411L, NURS 412L, and NURS 416.

NURS 417 Forensic Science: The Human Interface 2 Credits
Introduces the principles of forensic science as they relate to care of individuals experiencing events which require intervention from both the legal and health care systems. Integrates concepts from health care, psychology, sociology, criminology used to clinically investigate crimes against humans. Focuses on the unique knowledge and attributes that health care professionals contribute to multidisciplinary forensic investigation. Addresses various aspects of forensic investigation including role of the forensic scientist in working with the victim and the perpetrator, wound identification and collection of evidence. Specific areas of domestic violence, sexual assault, elder abuse, gang behavior, death investigation, victims' advocacy and courtroom dynamics are included. Students will experience forensic investigation in clinical areas.
Prerequisites: Acceptance into the B.S.N. program, or permission of instructor.

NURS 418 Gerontological Nursing and Chronic Illness 3 Credits
Evaluation of nursing leadership and trends central to individualized care of the older adult that affect nursing care. A scientifically sound, holistic process to provide culturally sensitive care for the geriatric population will be explored.
Prerequisites: Admission to the RN-BSN Program.
Terms Typically Offered: Fall, Spring, Summer.

NURS 420 Global Health 3 Credits
This is a multidimensional course for nursing students who want to broaden their understanding of health care in the global community The course involves pre-trip seminars, travel to a country of focus and post-trip sessions. Attendance is required at all sessions. Level Two nursing preparation recommended. The pre-trip seminars are conducted by the lead faculty and guest speakers. Students will prepare and present on topics during the seminars and will have opportunities to develop leadership skills. Within the focus country, students will travel as a group, meeting local health care professionals, student nurses, and nursing faculty. Students will volunteer alongside local providers, delivering care within their scope of practice and the boundaries delineated by the Ministry of Health. Opportunities to develop critical thinking skills, the nursing process and culturally sensitive care will be part of the pre-trip and in-country experiences. A post-trip seminar and a presentation to the community are also mandatory.

NURS 421 Population Health 3 Credits
Analysis of population health and the role of the nurse within the community setting.
Prerequisites: NURS 318/NURS 318L, NURS 329/NURS 329L, NURS 333, and NURS 400.
Corequisites: NURS 421L and NURS 427/NURS 427L.
Terms Typically Offered: Summer.
Fees: Yes.

NURS 421L Population Health Clinical 2 Credits
Application of the role of the nurse within community settings. Emphasis on developing critical thinking, diversity, and variations between acute care and community health settings to improve health outcomes.
Prerequisites: NURS 318/NURS 318L, NURS 329/NURS 329L, NURS 333, and NURS 400.
Corequisites: NURS 421, NURS 427, and NURS 427L.
Terms Typically Offered: Summer.
Fees: Yes.

NURS 426 Nursing Research and Evidence-Based Practice 3 Credits
Emphasis on nursing research and evidence-based practice in the process of scholarly inquiry in health care. Examination of research methodologies and related theories to facilitate development of a research proposal to investigate health care questions and outcomes.
Prerequisites: MATH 110 or higher and STAT 200.
Terms Typically Offered: Fall, Spring.

NURS 427 Mental Health 3 Credits
Introduction to the role of nursing in treating mental health and illness for individuals and families. Emphasis will be on the promotion of health and maintenance of persons with mental health disorders. Developing proficiency in the management of clients in various community setting will be prioritized.
Prerequisites: NURS 318/NURS 318L, NURS 329/NURS 329L, NURS 333, and NURS 400.
Corequisites: NURS 421/NURS 421L, and NURS 427L.
Terms Typically Offered: Summer.
Fees: Yes.

NURS 427L Mental Health Clinical 1 Credit
Exploration of the techniques of psychosocial integrity, with emphasis on the function and responsibility of the nurse in the promotion and maintenance of the mental health of individuals and families. Students will develop proficiency in working with psychiatric clients in various settings in the community.
Prerequisites: NURS 318/NURS 318L, NURS 329/NURS 329L, NURS 333, and NURS 400.
Corequisites: NURS 421/NURS 421L, and NURS 427.
Terms Typically Offered: Summer.
Fees: Yes.

NURS 429 Complex Adult Health 3 Credits
Exploration of the role of the registered nurse as a provider of care for critically ill adult clients. Emphasis on using data for clinical reasoning and decision-making when working with clients in complex health situation. The focus is on clients and families achieving optimal functioning and/or improving diverse client outcomes.
Prerequisites: NURS 421/NURS 421L and NURS 427/NURS 427L.
Corequisites: NURS 429L, NURS 431/NURS 431L, NURS 449/NURS 449L, and NURS 470L.
Terms Typically Offered: Fall.
Fees: Yes.

NURS 429L Complex Adult Health Clinical 3 Credits
Exploration of the role of the registered professional nurse as care provider, teacher, manager, professional, and advocate in meeting the complex medical and surgical health care needs of adult clients. Integration of previous learning to assist the client and family to achieve optimal functioning in various complex health care situations and settings will be emphasized.
Prerequisites: NURS 400, NURS 421/NURS 421L, and NURS 427/NURS 427L.
Corequisites: NURS 429, NURS 431/NURS 431L, NURS 449/NURS 449L, and NURS 470L.
Terms Typically Offered: Fall.
Fees: Yes.

NURS 430 Leadership for the RN 3 Credits
Exploration of the functioning of nurses in leadership and management capacities at the baccalaureate level. Application of components of leadership to the delivery of care and the role of the nurse in shaping the future of health care. Examination of trends and issues impacting nursing and the future of health care delivery systems.
Prerequisites: Admission to the RN-BSN Program and NURS 426.
Corequisites: NURS 430L.
Terms Typically Offered: Fall, Spring, Summer.

NURS 430L Leadership for the RN Laboratory 1 Credit
Application of theory into practice while functioning in a leadership and management role. Exploration of leadership concepts, skills, and problem-solving in a practice setting. Emphasis on communication skills, mentoring, and the promotion of safety for care delivery.
Prerequisites: Admission to the RN-BSN program and NURS 426.
Corequisites: NURS 430.
Terms Typically Offered: Fall, Spring, Summer.

NURS 431 High Risk Obstetrics and Pediatrics 3 Credits
Exploration of advanced concepts in the care of the high-risk childbearing family and children with complex health problems, from birth through adolescence. Emphasis of the whole person, culturally diverse, individualized care for special needs and complications during the maternal and child experience.
Prerequisites: NURS 421/NURS 421L and NURS 427/NURS 427L.
Corequisites: NURS 429/NURS 429L, NURS 431L, NURS 449/NURS 449L, and NURS 470L.
Terms Typically Offered: Fall.
Fees: Yes.

NURS 431L High Risk Obstetrics and Pediatrics Clinical 2 Credits
Application of advanced concepts in the care of the childbearing family and children with complex health problems, from birth through adolescence.
Prerequisites: NURS 421/NURS 421L and NURS 427/NURS 427L.
Corequisites: NURS 429/NURS 429L, NURS 431, NURS 449/NURS 449L, and NURS 470L.
Terms Typically Offered: Fall.
Fees: Yes.

NURS 432 Capstone Leadership for the RN 4 Credits
Development of the baccalaureate-prepared registered nurse to provide quality healthcare through lifelong learning and professional development and the impacts of quality on patient care and safety. Emphasis on goals for professional development, and the importance of lifelong learning to deliver high quality and safe client care in an ever-changing practice environment.
Prerequisites: NURS 300, NURS 320, NURS 320L, NURS 408, NURS 409, NURS 410, NURS 410L, NURS 418, NURS 426, NURS 430, and NURS 430L.
Terms Typically Offered: Fall, Spring, Summer.

NURS 449 Leadership 2 Credits
Introduction of leadership roles and management functions in using ethical and legal leadership skills to problem solve in today's health care organizations. Development of a nurse leader as a change agent in shaping health care.
Prerequisites: NURS 421/NURS 421L and NURS 427/NURS 427L.
Corequisites: NURS 429/NURS 429L, NURS 431/NURS 431L, NURS 449L, and NURS 470L.
Terms Typically Offered: Fall.
Fees: Yes.

NURS 449L Leadership Clinical 1 Credit
Application of leadership roles and management functions in using ethical and legal leadership skills to problem solve in today's health care organizations. Focusing on the analysis of contemporary nursing practice as the basis for nursing care.
Prerequisites: NURS 421/NURS 421L and NURS 427/NURS 427L.
Corequisites: NURS 429/NURS 429L, NURS 431/NURS 431L, NURS 449, and NURS 470L.
Terms Typically Offered: Fall.
Fees: Yes.

NURS 450 Intensive Care Areas Specialty Practice Preparedness 3 Credits
Overview of the dynamics of the collaborative and independent nature of nursing practice within critical care, perioperative, and emergency nursing. Commonalities of practice areas will be explored within the context of the nursing process. Includes recognizing and analyzing pertinent diagnostic data and physical and psychosocial assessment data; identifying common patient health problems and interventions; and determining patient outcomes. Prerequisite to the in-depth specialty practice courses.

NURS 457 Obstetrical Nursing 2 Credits
Introduction to nursing care of the childbearing family. Exploration of physiological, psycho-social, and cultural, ethical, and legal considerations related to conception, pregnancy, birth, and newborn care. Emphasis is on appropriate management of the health and illness related needs of the childbearing family, including the woman's needs and complications during the prenatal, intrapartum, and postpartum period.
Prerequisites: Admission to the BSN program.
Corequisites: NURS 458, NURS 459L, NURS 472, and NURS 473/NURS 473L.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

NURS 458 Pediatric Nursing 2 Credits
Introduction to nursing care of the child. Emphasis is on growth and developmentally appropriate management of the health and illness related needs of the child within the family. Exploration of physiological, psychosocial, and pathophysiological changes of the population. Application of nursing process to gather and analyze data and formulate interventions for children within culturally and socially diverse families.
Prerequisites: Admission to the BSN program.
Corequisites: NURS 457, NURS 459L, NURS 472, NURS 473, and NURS 473L.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

NURS 459L Obstetrical and Pediatric Nursing Clinical 3 Credits
Application of the nursing process in the care of diverse childbearing families. Practice interdisciplinary collaboration to establish developmentally appropriate, family-focused plans of care. Exploration of nursing care in labor and delivery, post-partum, newborn, and pediatrics, incorporating physiological, psychosocial, and pathophysiological conditions of the population, while identifying normal transitions of the childbearing process and community support for patients and families.
Prerequisites: Admission to the BSN program.
Corequisites: NURS 457, NURS 458, NURS 472, and NURS 473/NURS 473L.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

NURS 470L Capstone Clinical 2 Credits
Application of nursing principles and skills in an area of health care delivery. Critical thinking, lifelong learning, nursing process, caring, collaboration, and health teaching and promotion are emphasized.
Prerequisites: NURS 421/NURS 421L and NURS 427/NURS 427L.
Corequisites: NURS 429/NURS 429L, NURS 431/NURS 431L, and NURS 449/NURS 449L.
Terms Typically Offered: Fall.
Fees: Yes.

NURS 472 Professional Development II: Health Informatics 2 Credits
Exploration of the use of information systems in health care and nursing practice as related to patient care delivery, safety, and quality outcomes. Examines the effect of electronic health records on health care organizations' quality outcomes and safety, health care providers, governmental agencies, and consumer health. Explores legal/ethical issues in health information technology related to privacy, confidentiality, and security.
Prerequisites: Admission to the BSN program.
Corequisites: NURS 457, NURS 458, NURS 459L, and NURS 473/NURS 473L.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

NURS 473 Acute and Chronic Illness II 4 Credits
Exploration of multi-system disease processes to provide optimal levels of functioning within and outside of the acute care setting. Emphasis on complex critically ill or injured clients in high-stress situations.
Prerequisites: Admission to the BSN program.
Corequisites: NURS 457, NURS 458, NURS 459L, NURS 472, NURS 473L.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

NURS 473L Acute and Chronic Illness II Clinical 3 Credits
Application of theory to complete comprehensive assessments to plan care for critically ill or injured clients within and outside of the acute care setting. Exploration of health problems in critical care, emergency, medical-surgical units, invasive procedure labs, specialized healthcare teams, and other acute care clinical areas.
Prerequisites: Admission to the BSN program.
Corequisites: NURS 457, NURS 458, NURS 459L, NURS 472, NURS 473.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

NURS 480 Basic Concepts in Palliative Care 2 Credits
Provides basic theory about the practice of hospice and palliative care with focus on the consequences of progressive, predictable disease, providing attention to the whole person and family, and using scientific practice in developing treatment for pain and symptoms. Explores assessment, advanced communication skills, responses to loss, advance care planning, symptom management, and cultural and ethical issues.
Prerequisites: Prior RN degree and licensure, and current enrollment in the BSN program.

NURS 482 Professional Development III: The Professional Nurse 2 Credits
Exploration of the transition to professional nursing practice. Emphasis on licensure related to scope of practice, delegation, professional development, and policy. Exploration of health care systems pertaining to quality improvement, patient outcomes, finance, and policy.
Prerequisites: Admission to the BSN program.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

NURS 487 Community and Population Nursing 3 Credits
Exploration of the foundational knowledge and competencies essential for providing culturally inclusive and evidence-based nursing care to diverse communities and populations. Focuses on health equity, engaging in health promotion activities, and contributing to the improvement of population health outcomes through innovative nursing interventions and collaborative partnerships.
Prerequisites: Admission to the BSN program.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

NURS 487L Community and Population Nursing Clinical 2 Credits
Application of theory in practice with diverse populations and aggregates in the community to achieve an optimum level of wellness. Emphasis on health disparities, cultural diversity, social justice, and health laws and policies related to population vulnerability throughout the lifespan. Exploration of the continuum of outpatient care in home health and collaboration with community services.
Prerequisites: Admission to the BSN program.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

NURS 490 Nursing Leadership and Management 3 Credits
Introduction to nursing leadership and management concepts and strategies for high-quality decision-making processes for safe nursing practice. Exploration of a variety of leadership and management issues and trends in local, state, and or national settings that affect nursing practice. Comparison of the roles and responsibilities of leaders and managers as change agents to impact the future of healthcare.
Prerequisites: Admission to the BSN program.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

NURS 490L Nursing Leadership and Management Clinical 1 Credit
Development of skills necessary to hold a leadership or management role in nursing. Emphasis is on practice experiences utilizing leadership and management theory.
Prerequisites: Admission to the BSN program.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

NURS 492 Pharmacology for Nurses II 2 Credits
Integration of established pharmacology concepts from foundational nursing courses into the nursing process in preparation for clinical practice and the NCLEX-RN exam for the nursing profession. Emphasis on nursing considerations, and patient education and application of critical concepts.
Prerequisites: Admission to the BSN program.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

NURS 493A Senior Capstone Clinical I 2 Credits
Experiential learning under the direction of nurse preceptors and nursing faculty in a variety of practice settings, with a focus on four core competencies: assessment, technical skills, communication, and critical thinking. Emphasis is placed on the development of personal and professional strategies necessary to transition from the role of student nurse to graduate nurse.
Prerequisites: Acceptance into CMU nursing program; AHA CPR certification.
Terms Typically Offered: Fall.
Fees: Yes.

NURS 493B Senior Capstone Clinical II 2 Credits
Continued experiential learning under the direction of nurse preceptors and nursing faculty in a variety of practice settings, with a focus on four core competencies: assessment, technical skills, communication, and critical thinking. Emphasis is placed on the development of personal and professional strategies necessary to transition from the role of student nurse to graduate nurse.
Prerequisites: Acceptance into CMU nursing program; AHA CPR certification.
Terms Typically Offered: Spring.
Fees: Yes.

NURS 493L Senior Capstone Clinical 4 Credits
Experiential learning under the direction of nurse preceptors and nursing faculty in a variety of practice settings, with a focus on four core competencies: assessment, technical skills, communication, and critical thinking. Emphasis is placed on the development of personal and professional strategies necessary to transition from the role of student nurse to graduate nurse.
Prerequisites: Admission to the BSN program.
Terms Typically Offered: Fall, Spring, Summer.
Fees: Yes.

NURS 495 Independent Study 1-4 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

NURS 496 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

NURS 499 Internship 1-12 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

NURS 500 Theoretical Foundations 3 Credits
Examination of the critical components of nursing knowledge, including concepts, theories, and conceptual models. Appraise the variety of ways to organize nursing knowledge. Justify the application of nursing theory and nursing knowledge in the healthcare environment.
Terms Typically Offered: Fall.

NURS 501 Evidence-Based Practice 2 Credits
Analysis of advanced research concepts and their relationship to evidence-based practice. Exploration of application of research, ethics, designs, and methods to promote healthcare quality and safety.
Prerequisites: Admission to the MSN program.
Terms Typically Offered: Spring.

NURS 502 Technology for the Nurse Educator 3 Credits
Exploration of educational technologies used to advance health education to build safe, quality learning communities. Legal and ethical issues related to challenges and opportunity for technology use, computer-literacy, information-literacy and informatics will be examined for teaching in a variety of health care organizations.
Prerequisites: Admission to the MSN program.

NURS 503 Organizational Leadership 3 Credits
Utilizes leadership and management theory and application to develop skills or the understanding and implementation of change. Components of the course include leadership theory and models, change theory and models, project management and systems theory, financial management, organizational culture, and continuous process improvement.
Prerequisites: Admission to the MSN or DNP program.

NURS 504 Advanced Health Policy and Ethics 2 Credits
Analysis of health policies to prepare for advanced nursing leadership roles. Health care policy, cultural, sociopolitical, and legal statutes will be explored on the local, national, and/or global level. Policy influences on ethical health care dilemmas will be evaluated.
Prerequisites: Admission to the MSN or DNP program.

NURS 505 Advanced Quality Improvement and Leadership 3 Credits
Approaches to outcomes-based quality assessment and improvement. Focuses on leading techniques of measuring quality of care, customer satisfaction, and safety. Implementation of quality management programs, and creating a culture of supporting adherence to best practices and standards.
Prerequisites: Admission to the MSN or DNP program.

NURS 525 Advanced Pathophysiology 3 Credits
Examination of physiologic and pathophysiologic processes underlying health and disease across the lifespan. Includes cellular, genetic, and environmental factors that impact human health and illness.
Terms Typically Offered: Fall.

NURS 526 Advanced Pharmacology for Nursing 3 Credits
Pharmacology decision making and advanced management required for medication therapeutics. Assessment of advanced and in-depth evaluation of pharmacotherapeutics, pharmacokinetics, pharmacodynamics, contraindications and precautions, adverse effects, and drug interactions. Emphasis is on nurses' pharmacologic management of maximizing therapeutic effect, minimizing adverse effects, and patient and family education.
Prerequisites: NURS 525.

NURS 527 Advanced Health Assessment 2 Credits
Demonstration of a focused and comprehensive health assessment of clients across the lifespan. Includes diverse populations, biological, psychological, sociological, spiritual, and cultural aspects.
Prerequisites: NURS 525.
Corequisites: NURS 577.

NURS 530 Chronic Illness Management 3 Credits
Provides a framework for competency in chronic illness and disease which now accounts for a large percentage of the nation's health care costs. Introduction to the prevalence of chronic disease and its impact on the individual, family, community, and society is explored. Explores nursing's role in prevention and intervention of specific medical diseases, and psychosocial aspects of chronic illness and disability.
Prerequisites: Bachelor of Science in Nursing Degree.

NURS 535 Health Promotion and Disease Prevention 2 Credits
Appraisal of theories and principles involved in planning, implementing, and evaluating interventions for health promotion and disease prevention across the lifespan. Categorization of interventions using different units of analysis for well and chronically ill populations.
Prerequisites: Admission to the MSN or DNP program.
Terms Typically Offered: Fall.

NURS 536 Leading Through Quality, Policy, and Ethics 3 Credits
Survey of leadership theories and skills, quality improvement principles, health policies, and ethical and legal issues to prepare for advanced nursing roles on the local, national, and/or global level using evidence-based practice for contemporary social change and complex health care delivery systems.
Terms Typically Offered: Summer.

NURS 540 Teaching Strategies for the Nurse Educator 3 Credits
Exploration of strategies to promote proficiency in teaching and learning. Teaching and learning theories, principles, and the application of teaching strategies that promote a positive learning environment will be explored for a variety of settings.
Prerequisites: Admission to the MSN Program.

NURS 545 Curriculum Design/Evaluation 3 Credits
Approaches to curricular design and evaluation within nursing education. Program and course development for online, hybrid, and face-to-face courses, assessment and evaluation concepts, and basic legal and ethical issues for nursing education will be explored.
Prerequisites: Acceptance into the Master of Science of Nursing-Nurse Educator program.
Corequisites: NURS 545L.

NURS 545L Curriculum Design/Evaluation Laboratory 1 Credit
Approaches to curricular design and evaluation within nursing education. Program and course development for online, hybrid, and face-to-face courses, assessment and evaluation concepts, and basic legal and ethical issues for nursing education will be explored.
Prerequisites: Acceptance to the Master of Science in Nursing program.
Corequisites: NURS 545.
Terms Typically Offered: Fall.

NURS 560 Nurse Educator Practicum 3 Credits
Application of nursing teaching theory in a variety of teaching settings. Integrates knowledge from previous courses and includes opportunities to participate in all aspects of the educator role.
Prerequisites: NURS 502, NURS 540, and NURS 545/NURS 545L.
Corequisites: NURS 565.

NURS 565 Role Development: Nurse Educator 3 Credits
Exploration of the role and responsibilities of a nurse educator in a variety of settings will be discovered. Concepts and issues specific to nurse educators will be examined, while concluding this course through a comprehensive literature review on a topic of choice related to a nurse educator role.
Prerequisites: NURS 545/NURS 545L.
Corequisites: NURS 560.
Terms Typically Offered: Spring.

NURS 575 Capstone Project 2 Credits
Development of capstone project demonstrating synthesis of graduate work and establishes groundwork for future scholarship. Emphasis on the application of evidence-based practice within the student's clinical practice setting with selected populations. Culmination of a formal manuscript and oral defense in a public setting.
Prerequisites: NURS 602, NURS 603, NURS 605, NURS 615, NURS 620, and NURS 630.
Corequisites: NURS 604 and NURS 640.
Terms Typically Offered: Spring.

NURS 577 Clinical Practicum: Advanced Health Assessment 1 Credit
Application of didactic content related to advanced health assessment of individuals across the lifespan.
Prerequisites: NURS 525.
Corequisites: NURS 527.
Terms Typically Offered: Spring.

NURS 580 Thesis 3 Credits
Development of thesis. Synthesis of graduate work. Establishes groundwork for future scholarship. Topic chosen for thesis should reflect the student's nursing practice setting with a selected population group. Thesis project involves original research. Culminates in dissemination of findings in a formal paper to be submitted for publication.
Prerequisites: NURS 500, NURS 501, NURS 502, NURS 503, NURS 504, NURS 505, NURS 525, NURS 526, and NURS 527.

NURS 586 Clinical Practicum: Procedures and Diagnostic Testing 2 Credits
Exploration of common clinical procedures and diagnostic tests performed by primary care nurse practitioners.
Prerequisites: NURS 525, NURS 526, NURS 527, and NURS 577.
Terms Typically Offered: Summer.

NURS 588 Clinical Procedures and Diagnostic Testing II 1 Credit
Exploration of common clinical procedures and diagnostic tests performed by primary care nurse practitioners.
Prerequisites: NURS 525, NURS 526, NURS 527 and NURS 577.
Terms Typically Offered: Summer.

NURS 595 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

NURS 596 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

NURS 597 Clinical Practicum: Congregate Care of Adults & Older Persons 2 Credits
Management of adults and older adults in congregate care settings. Emphasis on the scope of practice of the adult-gerontological nurse practitioner and regulatory standards in congregate care settings.
Prerequisites: NURS 525, NURS 526, NURS 527, NURS 577, NURS 603, and NURS 630.
Terms Typically Offered: Fall.

NURS 600 Advanced Practice Nursing Issues 2 Credits
Investigation of the nurse practitioner professional role in augmenting client health and health services. Examines the history of nurse practitioners, client relations, and legal and ethical considerations, health policy formation and business strategies. Professional involvement, leadership, collaboration, and interdisciplinary teamwork in various settings are examined.
Prerequisites: Admission to the MSN or DNP program.
Terms Typically Offered: Summer.

NURS 601 Primary Care of the Infant, Child, and Adolescent 3 Credits
Investigation of primary care of the newborn, child, and adolescent. Social determinants of health are considered in theories of child development, family, environment, and population health. Acute and chronic conditions specific to pediatrics are evaluated.
Prerequisites: NURS 602 and NURS 620; or NURS 603 and NURS 630.
Corequisites: NURS 610.
Terms Typically Offered: Fall.

NURS 602 Primary Care of the Adult 3 Credits
Investigation of the role of the primary care nurse practitioner in adult health. Emphasis on clinical presentation, physical examination, diagnostic testing, differential diagnosis, and management of acute and chronic conditions affecting adult populations. Application of clinical practice guidelines, inter-disciplinary care, health promotion, and disease prevention in adult patients in the primary care setting.
Prerequisites: Admission to the MSN or DNP program.
Corequisites: NURS 620.
Terms Typically Offered: Fall.

NURS 603 Primary Care of the Older Person 3 Credits
Appraisal of the primary care nurse practitioner's role in older adult health. Critiques the application of clinical practice guidelines, interdisciplinary care, health promotion, and disease prevention in older adults across primary care settings.
Prerequisites: Admission to the MSN or DNP program.
Corequisites: NURS 630.
Terms Typically Offered: Spring.

NURS 604 Primary Care of Rural and Underserved Populations 1 Credit
Synthesis of primary care in the unique role of an advanced practice nurse with rural populations and nursing's ethical code for care of underserved populations.
Prerequisites: NURS 602 and NURS 620; or NURS 603 and NURS 630.
Corequisites: NURS 640.
Terms Typically Offered: Spring.

NURS 605 Mental and Behavioral Health 2 Credits
Appraisal of mental and behavioral health disorders seen and managed in the primary care setting. Review of clinical presentations, diagnostic reasoning, and therapeutic management options for individuals with mental and behavioral health conditions.
Prerequisites: Admission to the MSN or DNP program.
Corequisites: NURS 615.
Terms Typically Offered: Fall.

NURS 606 Interprofessional Collaboration for Care Management 1 Credit
Critique of the principles of case management within interdisciplinary teams. Design strategies that promote clinical outcomes, interprofessional collaboration, and cost-efficient utilization of healthcare resources.
Prerequisites: Admission to the DNP program.
Terms Typically Offered: Spring.

NURS 610 Clinical Practicum: Infant, Child, and Adolescent 2 Credits
Examination of theoretical concepts of primary care in care of infants, children, and adolescents. Integration of health assessment, pathophysiology, pharmacology, health promotion and disease prevention, and chronic and acute illness management in clinical practice.
Prerequisites: NURS 602 and NURS 620; or NURS 603 and NURS 630.
Corequisites: NURS 601.
Terms Typically Offered: Fall.

NURS 615 Clinical Practicum: Mental and Behavioral Health 1 Credit
Application of clinical assessment, diagnostic reasoning, and therapeutic management of mental and behavioral health disorders seen and managed in the primary care setting.
Prerequisites: Admission to the MSN or DNP program.
Corequisites: NURS 605.
Terms Typically Offered: Fall.

NURS 620 Clinical Practicum: Adult 3 Credits
Analysis of theoretical concepts of primary care of families, with a concentration on adult patients and the environments where adult primary care is rendered. Focus is on assessment, diagnostic, and laboratory evaluation, as well as management of families across the continuum of health and illness to improve health outcomes at the individual and aggregate levels.
Prerequisites: Admission to the MSN or DNP program.
Corequisites: NURS 602.
Terms Typically Offered: Fall.

NURS 625 Statistics for Health Sciences 2 Credits
Investigation of commonly used statistical methods and procedures in health science research and practice. Management of datasets and performance of statistical tests using statistical software packages.
Prerequisites: Admission to the DNP program.
Terms Typically Offered: Fall.

NURS 626 Clinical Epidemiology 2 Credits
Consideration of epidemiological concepts as applied to public health. Assessment of the impact of policies and programs in disease investigation. Application of statistical principles to evaluate human behavior and disease risks.
Prerequisites: Admission to the DNP program.
Terms Typically Offered: Fall.

NURS 627 Health Systems in Advanced Nursing Practice 2 Credits
Investigation of complex healthcare systems and the roles of advanced nursing practice. Development of actual or potential interventions to solve problems within healthcare environments based on nursing ethics, evidence-based practice, and regulatory requirements.
Prerequisites: Admission to the DNP program.
Terms Typically Offered: Fall.

NURS 628 Data Management and Finance for Health Systems 2 Credits
Principles of financial planning, ethical decision-making, and management in healthcare systems. Strategies to manage sustainability, limited resources, and the care of complex patient populations will be explored.
Prerequisites: Admission to the DNP program.
Terms Typically Offered: Fall.

NURS 630 Clinical Practicum: Older Person 3 Credits
Operationalization of theoretical concepts in primary care for older adults. Integration of health assessment, pathophysiology, pharmacology, health promotion and disease prevention, and chronic and acute illness management in the care of older persons as an advanced practice registered nurse.
Prerequisites: NURS 525, NURS 526, NURS 527, and NURS 577.
Corequisites: NURS 603.
Terms Typically Offered: Spring.

NURS 635 Advanced Health Promotion and Disease Prevention 2 Credits
Adaptation of theoretical frameworks in planning, implementing, and evaluating health promotion and disease prevention at the aggregate level. Consideration of cultural variations, vulnerabilities, human and material resources, and ethics.
Prerequisites: Admission to the DNP program.
Terms Typically Offered: Fall.

NURS 636 Environmental Health for Underserved Populations 2 Credits
Appraisal of concepts and recommendations for system changes to address specific environmental hazards that affect the health of individuals and populations.
Prerequisites: Admission to the DNP program.
Terms Typically Offered: Spring.

NURS 640 Clinical Practicum Capstone: Primary Care of Rural and Underserved Populations 3 Credits
Justification of theoretical concepts of primary care across the lifespan with particular emphasis on rural and/or underserved populations. Unique aspects of diversity, equity, and inclusion for accessing client health care in rural and underserved populations.
Prerequisites: NURS 602 and NURS 620; or NURS 603 and NURS 630.
Corequisites: NURS 604.
Terms Typically Offered: Fall.

NURS 645 Contemporary Issues: Rural and Underserved 2 Credits
Investigation into the unique healthcare challenges facing rural and underserved populations. Consideration of modifications required to the structures and processes of healthcare delivery systems to address health disparities.
Prerequisites: Admission to the DNP program.
Terms Typically Offered: Spring.

NURS 650 Clinical Preceptorship I 3 Credits
Integration of preceding clinical and didactic course knowledge and skills. Experience in the role of advanced nursing practice with an approved preceptor/mentor.
Prerequisites: Acceptance to the DNP program and NURS 660.
Corequisites: NURS 750.
Terms Typically Offered: Fall.

NURS 652 Clinical Preceptorship II 3 Credits
Continued synthesis of preceding clinical and didactic course knowledge and skills. Experience in the role of advanced nursing practice with an approved preceptor/mentor.
Prerequisites: NURS 650.
Corequisites: NURS 760.
Terms Typically Offered: Spring.

NURS 660 Doctor of Nursing Practice Scholarly Project: Identification 2 Credits
Concepts of leadership and autonomy for the Doctor of Nursing Practice. Needs assessment for identification of a gap in clinical practice and project problem are formalized. Professional practice and collaboration are demonstrated.
Prerequisites: Admission to the DNP program.
Terms Typically Offered: Spring.

NURS 697 Clinical Practicum: Advanced Healthcare Leadership 1-3 Credits
Operationalization of theory, frameworks, and concepts to clinical leadership experiences. Emphasis on leadership strategies, communication, and an advanced leadership role in the clinical healthcare setting.
Prerequisites: Admission to the DNP program.
Terms Typically Offered: Summer.
Course may be taken multiple times up to maximum of 6 credit hours.

NURS 700 Translational Evidence-Based Practice 2 Credits
Strategies to incorporate research findings into the clinical setting. Critical appraisal of the evidence in guiding patients or systems in improvement or implementation. Translation of evidence-based methods to establish the association between observed outcomes and intervention. Criteria for causal inferences, legal and ethical issues, associations between risk factors and disease outcomes will be explored.
Prerequisites: Admission to the MSN or DNP program.

NURS 704 Advanced Health Policy and Ethics 2 Credits
Estimation of the impact of health policies on the delivery of health care systems. Justification of health care policy, cultural, sociopolitical, and legal statutes on the local, national, and/or global level. Policy solutions for ethical health care dilemmas will be created.
Prerequisites: Admission to the DNP program.
Terms Typically Offered: Spring.

NURS 705 Advanced Quality Improvement and Leadership 3 Credits
Facilitation of outcomes-based quality assessment and improvement. Management of quality improvement implementation, integrating quality of care, customer satisfaction, and safety to create a culture of best practices and standards.
Prerequisites: Admission to the DNP program.
Terms Typically Offered: Spring.

NURS 725 Doctor of Nursing Practice Scholarly Project: Development 2 Credits
Synthesis of available knowledge and literature in development and refinement of the scholarly project purpose. Nature and significance of the problem are constructed in a logical sequence to support the purpose.
Prerequisites: NURS 660.
Terms Typically Offered: Fall.

NURS 750 Doctor of Nursing Practice Scholarly Project: Design and Defend 3 Credits
Final development of scholarly project proposal that demonstrates synthesis of doctoral work. Emphasis on evidence-based practice models and methods, culminating with a proposal defense to improve practice or patient outcomes.
Prerequisites: Admission to DNP program.
Terms Typically Offered: Fall.

NURS 760 Doctor of Nursing Practice Scholarly Project: Implementation and Evaluation 3 Credits
Culmination of scholarly project, including translation of evidence to address a gap in practice or to inform clinical practice at an individual or aggregate level. Implementation and evaluation of improvements in practice and outcomes of care. Project follows a systematic process and lays the groundwork for future scholarship.
Prerequisites: NURS 750.

NURS 795 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

Occupational Therapy (OCCU)

Courses

OCCU 510 Scholarship and Research 2 Credits
Foundational basis to inspire ethical decision making and the scholarship of research in health care. Exploration of the relationship between theory, research, and practice, with application to the research process, collecting and analyzing quantitative and qualitative data, as well as developing skills for scholarly writing.
Prerequisites: OCCU 511, OCCU 512, OCCU 513, OCCU 514, OCCU 515, OCCU 516, and OCCU 550.
Corequisites: OCCU 520, OCCU 522, OCCU 523, and OCCU 551.
Terms Typically Offered: Summer.

OCCU 511 Lifespan and Occupational Performance 2 Credits
Exploration of the concept of occupation across the lifespan, from prenatal development to death. The role of occupation as central to health is explored as influenced by culture, disability, ethnicity, illness, and geographic location.
Prerequisites: Admission into the Master of Science in Occupational Therapy program.
Corequisites: OCCU 512, OCCU 513, OCCU 514, OCCU 515, OCCU 516, and OCCU 550.
Terms Typically Offered: Spring.
Fees: Yes.

OCCU 512 Professional Skills and Occupation-Based Practice I 2 Credits
Analysis of occupation from an in-depth look at its various forms as defined in the Occupational Therapy Practice Framework, including activity demands for all ages. Students learn to compare, contrast, and choose occupation-based activities based upon activity demands, culture, social, personal, and temporal contexts across the lifespan for diverse populations. Introduction of formal and informal assessments to inform practice.
Prerequisites: Admission into the Master of Science in Occupational Therapy program.
Corequisites: OCCU 511, OCCU 513, OCCU 514, OCCU 515, OCCU 516, and OCCU 550.
Terms Typically Offered: Spring.

OCCU 513 Functional Anatomy and Movement 4 Credits
Integrated, theoretical, and functional approaches to studying anatomy and movement across the lifespan. Includes the principles of movement, body alignment, joint structure, muscle actions, and motor planning as the basis to assess typical and atypical movement during life tasks.
Prerequisites: Admission into the Master of Science in Occupational Therapy program.
Corequisites: OCCU 511, OCCU 512, OCCU 514, OCCU 515, OCCU 516, and OCCU 550.
Terms Typically Offered: Spring.
Fees: Yes.

OCCU 514 Wellness and Occupational Performance 2 Credits
Examination of the relationship between occupation and wellness within a range of community settings.
Prerequisites: Admission into the Master of Science in Occupational Therapy program.
Corequisites: OCCU 511, OCCU 512, OCCU 513, OCCU 515, OCCU 516, and OCCU 550.
Terms Typically Offered: Spring.
Fees: Yes.

OCCU 515 Occupation-Based Practice and Theory for Older Adults 4 Credits
In-depth analysis of occupation-based practice and theory, focused on older adults living with physical, mental, and/or emotional conditions. Topics include: applied occupational therapy skills, application of safety regulations, teaching clients wheelchair and bed mobility, and using evidence-based research to support occupational therapy interventions focused on client-centered occupational participation.
Prerequisites: Admission into the Master of Science in Occupational Therapy program.
Corequisites: OCCU 511, OCCU 512, OCCU 513, OCCU 514, OCCU 516, OCCU 550.
Terms Typically Offered: Spring.
Fees: Yes.

OCCU 516 History and Theoretical Foundations of Occupational Therapy 2 Credits
Introduction to the history of the occupational therapy profession, occupational science, and theories. Skills associated with analysis, critical reasoning, and theory development associated with the occupational therapy process.
Prerequisites: Admission into the Master of Science in Occupational Therapy program.
Corequisites: OCCU 511, OCCU 512, OCCU 513, OCCU 514, OCCU 515, and OCCU 550.
Terms Typically Offered: Spring.

OCCU 520 Brain, Behavior and Occupation 3 Credits
Foundational neuroscience preparation, including: nervous system structures and development, neurotransmission and neurohormonal mechanisms, plasticity in typical development, and response to trauma and disease. Covers neuronal pathways underlying function, with emphasis on sensation, movement, cognition, pain, behavior, emotion, sex, sleep/rest, language, and learning. Analysis of differences in nervous system function to understand how occupational performance relates to processing of neurological structures.
Prerequisites: OCCU 511, OCCU 512, OCCU 513, OCCU 514, OCCU 515, OCCU 516, and OCCU 550.
Corequisites: OCCU 510, OCCU 522, OCCU 523, and OCCU 551.
Terms Typically Offered: Summer.
Fees: Yes.

OCCU 522 Professional Skills and Occupation-Based Practice II 2 Credits
Investigation of occupation and activities using the Occupational Therapy Practice Framework (OTPF), focusing on adults living with acute or chronic health conditions. Acquisition of skills to administer and interpret evaluations used in practice. Prepares the student to compare, contrast, and choose occupation-based activities based upon activity demands, culture, social, personal, and temporal contexts for diverse populations.
Prerequisites: OCCU 511, OCCU 512, OCCU 513, OCCU 514, OCCU 515, OCCU 516, and OCCU 550.
Corequisites: OCCU 510, OCCU 520, OCCU 523, and OCCU 551.
Terms Typically Offered: Summer.

OCCU 523 Occupation-Based Practice and Theory for Adults 4 Credits
In-depth analysis of occupation-based practice and theory, focused on adults living with acute or chronic illness and other occupational performance issues.
Prerequisites: OCCU 511, OCCU 512, OCCU 513, OCCU 514, OCCU 515, OCCU 516, and OCCU 550.
Corequisites: OCCU 510, OCCU 520, OCCU 522, and OCCU 551.
Terms Typically Offered: Summer.
Fees: Yes.

OCCU 530 Scholarship and Evidence-Based Practice I 2 Credits
Development of skills to explore and use evidence to support practice. Continued exploration of the evidence-based literature requiring analysis, interpretation, and synthesis of data, inclusive of quantitative and qualitative research, systematic and scoping reviews, critical appraisal of research, and case studies.
Prerequisites: OCCU 510, OCCU 520, OCCU 522, OCCU 523, and OCCU 551.
Corequisites: OCCU 531, OCCU 532, OCCU 533, OCCU 534, and OCCU 552.
Terms Typically Offered: Fall.

OCCU 531 Occupation-Based Practice and Theory for Children and Adolescents 4 Credits
In-depth analysis of occupation-based practice & theory focused on infants, children, and adolescents living with developmental or acquired health conditions and their caregivers. Topics include: the occupational therapy process for a variety of settings and how client-centered occupational therapy influences physical, mental, and emotional health.
Prerequisites: OCCU 510, OCCU 520, OCCU 522, OCCU 523, and OCCU 551.
Corequisites: OCCU 530, OCCU 532, OCCU 533, OCCU 534, and OCCU 552.
Terms Typically Offered: Fall.
Fees: Yes.

OCCU 532 Assistive Technology and Occupation 3 Credits
Exploration of assistive technology (AT) and adapted equipment to improve quality of life and participation in everyday occupations and daily life tasks. This course will cover topics related to: assessment, design, fabrication, application, and training in assistive technologies and devices to improve occupational performance.
Prerequisites: OCCU 510, OCCU 520, OCCU 522, OCCU 523, and OCCU 551.
Corequisites: OCCU 530, OCCU 531, OCCU 533, OCCU 534, and OCCU 552.
Terms Typically Offered: Fall.
Fees: Yes.

OCCU 533 Telehealth, Occupation and Modalities 3 Credits
Investigation and analysis of the appropriate application of telehealth, as well as the safe and effective use of physical agent modalities (PAMs) to support function and occupational engagement. Topics include the use of telehealth for urban and rural populations and clinical decision making for use of modalities in practice to support occupational engagement.
Prerequisites: OCCU 510, OCCU 520, OCCU 522, OCCU 523, and OCCU 551.
Corequisites: OCCU 530, OCCU 531, OCCU 532, OCCU 534, and OCCU 552.
Terms Typically Offered: Fall.
Fees: Yes.

OCCU 534 Occupational Therapy and Mental Health Practice 3 Credits
Approaches to provisions of occupational therapy services in mental and behavioral health settings, educational settings, work, and community. Practice models, assessments, and intervention planning skills will be developed.
Prerequisites: OCCU 510, OCCU 520, OCCU 522, OCCU 523, and OCCU 551.
Corequisites: OCCU 530, OCCU 531, OCCU 532, OCCU 533, and OCCU 552.
Terms Typically Offered: Fall.
Fees: Yes.

OCCU 540 Scholarship and Evidence-Based Practice II 2 Credits
Application of research concepts leading to a research protocol and proposal for submission to an Institutional Review Board. Skills include methods of data collection and analysis, as well as preparation of a scholarly report.
Prerequisites: OCCU 530, OCCU 531, OCCU 532, OCCU 533, OCCU 534, and OCCU 552.
Corequisites: OCCU 541, OCCU 542, OCCU 543, OCCU 553, and OCCU 593.
Terms Typically Offered: Spring.

OCCU 541 Leadership and Ethics in Occupational Therapy 2 Credits
Preparation in leadership skills for assuming roles requiring ethical prioritizing and professional decision making. Topics include: policy development, advocacy, business aspects of practice, legislation affecting practice, marketing the delivery of services, quality management and improvement, as well as ethical decision making, and supervision of personnel.
Prerequisites: OCCU 530, OCCU 531, OCCU 532, OCCU 533, OCCU 534, and OCCU 552.
Corequisites: OCCU 540, OCCU 542, OCCU 543, OCCU 553, and OCCU 593.
Terms Typically Offered: Spring.

OCCU 542 Occupation-Based Practice and Theory for Populations 4 Credits
In-depth investigation of occupation and activities utilizing the Occupational Therapy Practice Framework (OTPF) for populations experiencing chronic health problems due to complex socio-cultural, economic, or political factors (e.g., homelessness, drug addiction, diabetes). Skills developed include creation and application of occupation-based activities to improve quality of life and occupational engagement.
Prerequisites: OCCU 530, OCCU 531, OCCU 532, OCCU 533, OCCU 534, and OCCU 552.
Corequisites: OCCU 540, OCCU 541, OCCU 543, OCCU 553, and OCCU 593.
Terms Typically Offered: Spring.
Fees: Yes.

OCCU 543 Professional Development Preparation 2 Credits
Preparation in the attitudes and skills necessary for practice. Students will gain competency in the occupational therapy process by evaluating written and actual standardized patients/clients representing clinical populations.
Prerequisites: OCCU 530, OCCU 531, OCCU 532, OCCU 533, OCCU 534, and OCCU 552.
Corequisites: OCCU 540, OCCU 541, OCCU 542, OCCU 553, and OCCU 593.
Terms Typically Offered: Spring.

OCCU 550 Fieldwork Level IA and Seminar 1 Credit
Participation in traditional and emerging practice areas in wellness communities for older adults. Includes behavioral health, followed by discussion of health and wellness in older adult communities. Hands-on experience interacting with groups of at-risk individuals during activities, with a focus on health promotion and occupational engagement.
Prerequisites: Admission into the Master of Science in Occupational Therapy program.
Corequisites: OCCU 511, OCCU 512, OCCU 513, OCCU 514, OCCU 515, and OCCU 516.
Terms Typically Offered: Spring.

OCCU 551 Fieldwork Level IB and Seminar 1 Credit
Participation in traditional and emerging practice areas in occupational therapy, inclusive of behavioral health, for adults and older adults. Exploration of health and disability via hands-on experience with supervision to practice professional skills and influence occupational performance and behavioral health.
Prerequisites: OCCU 511, OCCU 512, OCCU 513, OCCU 514, OCCU 515, and OCCU 550.
Corequisites: OCCU 510, OCCU 520, OCCU 522, and OCCU 523.
Terms Typically Offered: Summer.

OCCU 552 Fieldwork Level IC and Seminar 1 Credit
Participation in traditional and emerging practice areas, inclusive of behavioral health, where occupation is the focus of intervention for infants, children, and adolescents with congenital or acquired disability. Exploration of factors influencing occupational performance and behavioral health via supervised hands-on experience and practice of professional skills.
Prerequisites: OCCU 520, OCCU 522, and OCCU 523.
Corequisites: OCCU 530, OCCU 531, OCCU 532, OCCU 533, and OCCU 534.
Terms Typically Offered: Fall.

OCCU 553 Fieldwork Level ID and Seminar with Inter-Professional Education 1 Credit
Didactic and experiential course providing opportunities in analyzing diverse cases from multiple inter-professional perspectives to prepare the student for professional life. The student will experience a variety of professional perspectives, including but not limited to: special education, nursing, physical therapy, speech therapy, athletic training, physicians, and physician assistants. Emphasis on professional behavior preparation in the skills and attitudes for practice.
Prerequisites: OCCU 530, OCCU 531, OCCU 532, OCCU 533, OCCU 534, and OCCU 552.
Corequisites: OCCU 540, OCCU 541, OCCU 542, OCCU 543, and OCCU 593.
Terms Typically Offered: Spring.

OCCU 554 Fieldwork Level IIA 9 Credits
Fieldwork experience under the mentored supervision of a licensed occupational therapist. Includes an in-depth experience in delivering occupational therapy services to clients throughout the occupational therapy process. Students are expected to assume increasing responsibilities related to client care.
Prerequisites: OCCU 540, OCCU 541, OCCU 542, OCCU 543, OCCU 553, and OCCU 593.
Terms Typically Offered: Summer.

OCCU 555 Fieldwork Level IIB 9 Credits
Mentored experience in the evaluation and treatment of individuals from a different age group, health condition, and setting other than the Level IIA Fieldwork. Conducted under the supervision of a licensed occupational therapist.
Prerequisites: OCCU 554.
Corequisites: OCCU 594.
Terms Typically Offered: Fall.

OCCU 593 Occupational Therapy Culminating Experience 1 Credit
Culminating experience to demonstrate synthesis of knowledge gained from a graduate-level research project. Research findings will be disseminated to peers, stakeholders, and wider audiences through poster presentations and submission of a manuscript to a scholarly journal. Emphasis on contributing to the growth and dissemination of research and knowledge in the occupational therapy profession.
Prerequisites: Admission into the Master of Science in Occupational Therapy program, OCCU 530, OCCU 531, OCCU 532, OCCU 533, and OCCU 552.
Corequisites: OCCU 540, OCCU 541, OCCU 542, OCCU 543, and OCCU 553.
Terms Typically Offered: Spring.
Fees: Yes.

OCCU 594 Fieldwork Seminar 1 Credit
Discussion and integration of curriculum elements of the MSOT, including professional attributes/behaviors, licensing and regulation of the profession, and preparation for the national certification examination. Facilitated by the academic fieldwork coordinator.
Prerequisites: OCCU 554.
Corequisites: OCCU 555.
Terms Typically Offered: Fall.

OCCU 596 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Outdoor Recreation Industry Studies (OREC)

Courses

OREC 100 Leave No Trace 1 Credit
Exploration of Leave No Trace principles and the history, goals and objectives of the Leave No Trace mission. Includes controversial ideas cornering wildland ethics and impacts of recreational use on wildlands and ecosystems, as well as a Leave No Trace Trainer certification and the ability to lead Leave No Trace Awareness workshops.
Terms Typically Offered: Fall, Spring.

OREC 104 Orienteering 1 Credit
Introduction to the science of orienteering. Emphasis on acquiring a respect for the environment by route finding in a “low-impact” manner and gaining the knowledge to comfortably navigate from a map.
Corequisites: OREC 105.
Terms Typically Offered: Fall, Spring.

OREC 105 Backpacking 1 Credit
Introduction to the basics of backpacking. Foundational technical skills required to successfully and safely perform an overnight backpacking trip in a wilderness setting. Focuses on technical specifications and proper use of equipment, how to properly load and carry a backpack, campsite selection, camp cooking, water treatment and Leave No Trace etiquette.
Corequisites: OREC 104.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

OREC 108 Stand Up Paddle Boarding 1 Credit
Foundational skills required to develop and refine effective Stand Up Paddle Board (SUP) navigation in moving flatwater and lake settings. Focuses on the knowledge of SUP equipment, proper safety precautions, SUP movement, basic hydrology, flatwater self-rescue skills, and overall water and SUP safety.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

OREC 109 Kayaking 1 Credit
Introduction to basic kayak and water reading skills. Students will learn kayaking safety, hazard evaluation, terminology, whitewater river reading skills, and paddling strokes.
Terms Typically Offered: Fall, Spring, Summer.
Fees: Yes.

OREC 110 River Rafting 1 Credit
Introduction to whitewater rafting skills and knowledge. Students will learn about river trip planning, safety procedures, equipment, logistics, and minimizing environmental impact.
Terms Typically Offered: Fall, Summer.
Fees: Yes.

OREC 112 Rock Climbing II 1 Credit
Foundational technical skills required to move into outdoor climbing locations. Focus on teaching an in depth and standardized understanding of the skills essential to progressing into both sport and traditional lead climbing, anchor building, and overall climbing site safety.
Prerequisites: KINA 111.
Terms Typically Offered: Fall, Spring.

OREC 135 Backcountry Winter Travel 1 Credit
Foundational and technical skills required to travel in the backcountry in winter conditions. Will utilize a variety of travel methods including skis, split boards, snowshoes, and cross country skis. Focus is on proper gear use, travel in extreme cold conditions, proper terrain choices, and winter safety and survival techniques.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

OREC 205 Foundations of Outdoor Recreation Industry Studies 3 Credits
Exploration of the outdoor recreation industry, including the history, ethics, and principles of this sector. Covers legislation, policy, economics, and theory, and addresses the industry accords of economic development; education and workforce; health and wellness; diversity, equity, and inclusion; and conservation and stewardship. Examines different sectors of the outdoor recreation industry, including outlining job opportunities and industry potential.
Terms Typically Offered: Fall, Spring.

OREC 305 Outdoor Industry Business 3 Credits
Examination of leadership, ethics, and organizational culture in outdoor industry businesses, including law and finance, brand management and strategic marketing, innovation and entrepreneurship, product design and service development, liability and risk management and corporate social responsibility. Explores the quantitative and analytical techniques used in product and service-based businesses, including planning and management.
Prerequisites: OREC 205.
Terms Typically Offered: Fall, Spring.

OREC 311 Avalanche Rescue Techniques and Theory 3 Credits
Theoretical background and essential skills for responding to emergencies and rescues in avalanche terrain, including stability analysis, terrain evaluation, travel techniques and decision-making tools. Advanced search and rescue techniques will be taught.
Prerequisites: OREC 135.
Terms Typically Offered: Spring.
Fees: Yes.

OREC 312 Swiftwater Rescue Techniques and Theory 3 Credits
Theoretical background and essential skills for responding to emergencies and rescues in a moving water environment. Explores swiftwater rescue professional avenues and the evidence basis for modern rescue techniques. Technical rescue skills and wilderness medical consideration are integrated in scenarios where students are challenged to work on individual skills while simultaneously demanding coordinated teamwork.
Prerequisites: OREC 108, OREC 109, or OREC 110.
Terms Typically Offered: Fall.
Fees: Yes.

OREC 313 Rock Climbing Instructor and Rope Rescue 3 Credits
In-depth and standardized understanding of the skills essential to teaching climbing in an outdoor setting and intensive training in rope rescue fundamentals. Prepares students to set-up and manage groups of climbers on technical terrain with non-technical access. Includes the setup of top rope anchors, belay instruction and management, and site evaluation. Reviews current research and the evidence basis for techniques.
Prerequisites: OREC 112.
Terms Typically Offered: Fall.

OREC 315 Professional Outdoor Guide 3 Credits
Exploration of minimal impact recreation practices, expedition nutrition and backcountry cooking, technical rescue skills, wilderness safety, and comprehensive and practical training for leaders in remote areas. Topics include the essential principles and skills required to assess and manage a group of people in isolated and extreme environments.
Prerequisites: OREC 104, OREC 105, and OREC 112.
Terms Typically Offered: Spring.

OREC 335 Public Lands Management 3 Credits
Exploration of the field of public lands and resource management. Examines the role of federal, state, tribal, and local governments, businesses, non-governmental organizations, recreation users, and wildlife in public lands. Examines histories, current issues, and cultural trends in public lands agencies, as well as policies that govern land management.
Prerequisites: OREC 205.
Terms Typically Offered: Spring.

OREC 350 Nature-Based Interventions for Individual and Community Health 3 Credits
Principles that promote physical and emotional wellbeing, social connectedness, and resilience through access to nature and the outdoors. Assessment of equitable access to community outdoor recreation resources. Synthesis of data on the health benefits of nature. Investigation of cross-sector partnerships, with a focus on identifying funding for community health goals.
Prerequisites: OREC 205 or SOWK 150.
Equivalent Course(s): SOWK 325
Terms Typically Offered: Fall.

OREC 396 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

OREC 400 Outdoor Industry Project Management 3 Credits
Application of real-life project management skills and best practices on a team project in order to tackle pivotal issues in the outdoor industry. Participating in small teams, students are paired with an outdoor industry organization and tasked with developing an actionable solution to a current challenge facing the organization. Career preparation and outdoor industry specific professional development is also part of this course.
Prerequisites: OREC 205 and OREC 305.
Terms Typically Offered: Spring.

OREC 405 Outdoor Recreation Leadership, Programming, Education, and Assessment 3 Credits
Practical skills of teaching, facilitation, education, sequencing and assessment of outdoor and adventure activities. Explores leadership as an essential component in the transformation of a group into a high functioning team all focused on a shared goal and outcome.
Prerequisites: OREC 205 and two of the following: OREC 311, OREC 312, OREC 313, or OREC 315.
Terms Typically Offered: Fall, Spring.

OREC 499 Internship 3-12 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Pharmacy Technician (PHTE)

Courses

PHTE 111 Introduction to Pharmacy 3 Credits
Introduction to the practice of pharmacy and the work that pharmacy technicians perform. Provides an overview of careers within the field; educational, certification and accreditation requirements; ethical and legal responsibilities; pharmacology; as well as a variety of issues that touch on attitudes, values and beliefs of successful pharmacy technicians.
Terms Typically Offered: Fall.

PHTE 112 Pharmacy Law and Ethics 2 Credits
Introduction to the laws, regulations, and agencies that pertain to pharmacy practice and the role that technicians play to ensure compliance. Establishes a foundation of ethical behavior and decision-making and discusses the consequences of violating laws and ethical principles.
Terms Typically Offered: Spring.

PHTE 114 Computer Skills for Pharmacy Technicians 1 Credit
Introduction to basic pharmacy and computer terminology and applications of a pharmacy management system. Focuses on the practice of pharmacy and the multiple operations that contribute to safe and effective patient care and discusses the roles and responsibilities of pharmacists and pharmacy technicians in computer-based systems.
Terms Typically Offered: Fall.
Fees: Yes.

PHTE 115 Pharmacology I 3 Credits
Fundamentals of pharmacology, the pharmacokinetic phases, and the basic concepts of normal body function. Examines diseases which impact the various body systems and the drugs used to treat such diseases emphasizing disease states and drug therapy.
Terms Typically Offered: Fall.

PHTE 116 Institutional Pharmacy 3 Credits
Exploration of the role of pharmacy technicians and the practice of pharmacy in the institutional setting. This course covers institutional and pharmacy organization, terminology, medication distribution systems, packaging, and preparation of intravenous admixtures.
Terms Typically Offered: Fall.
Fees: Yes.

PHTE 118 Pharmacology II 3 Credits
Examination of disease states, which impact the various body systems, and the drugs used to treat such diseases. Emphasizes disease state management and drug therapy. Serves as the second part of the two-part presentation of the basic concepts of pharmacology.
Prerequisites: PHTE 115.
Terms Typically Offered: Spring.

PHTE 119 Community Pharmacy 3 Credits
Tasks and responsibilities involved in the practice of pharmacy in a community setting. Emphasizes chain and independent community pharmacy practice and other related practice settings, such as consultant pharmacy, mail order pharmacy, and nuclear pharmacy.
Terms Typically Offered: Spring.
Fees: Yes.

PHTE 170 Pharmacy Clinical I 3 Credits
Hands-on experience in an pharmacy setting. Students must be supervised by a licensed pharmacist or qualified designee and are expected to participate in activities delineated in the Clinical Site Manual, such as dispensing, compounding, inventory handling and control, drug distribution, and/or preparation of intravenous products.
Prerequisites: PHTE 111, PHTE 114, PHTE 115, PHTE 116, and PHTE 235.
Corequisites: PHTE 112, PHTE 118, and PHTE 119.
Terms Typically Offered: Fall, Spring, Summer.
Fees: Yes.

PHTE 171 Pharmacy Clinical II 2 Credits
Hands-on experience in a pharmacy setting. Supervision by a licensed pharmacist or qualified designee required and are expected to participate in activities delineated in the Clinical Site Manual, such as dispensing, inventory handling and control, drug distribution, processing of third-party claims, and communication with patients.
Prerequisites: PHTE 111, PHTE 112, PHTE 114, PHTE 115, PHTE 116, PHTE 118, PHTE 119, PHTE 235, PHTE 250, and PHTE 255.
Terms Typically Offered: Fall, Spring, Summer.

PHTE 189 Review for PTCB National Exam 1 Credit
Preparation and practice for national certification exam.
Terms Typically Offered: Spring.
Fees: Yes.

PHTE 235 Calculations and Compounding Techniques 4 Credits
Development of the necessary skills required to perform calculations essential to the duties of pharmacy technicians in a variety of contemporary settings. Applies these skills in hands-on compounding of pharmaceutical products, emphasizing the importance of accuracy, quality, and infection control.
Terms Typically Offered: Fall.
Fees: Yes.

PHTE 250 Sterile Compounding and Aseptic Technique 2 Credits
Overview of methods and regulation of sterile products as well as instruction and training for the mastery of aseptic technique and the successful production of sterile preparations. Prepares students for passing process validation checklists and provides comprehensive coverage of all procedures and techniques related to the skill sets necessary for sterile compounding.
Prerequisites: PHTE 111, PHTE 112, PHTE 114, PHTE 115, PHTE 116, PHTE 118, PHTE 119, and PHTE 235.
Terms Typically Offered: Fall.
Fees: Yes.

PHTE 255 Advanced Practice and Nontraditional Roles 2 Credits
Comparison of nontraditional roles and responsibilities for pharmacy technicians and compares career opportunities for pharmacy professionals as pharmacy practice expands into many new areas.
Prerequisites: PHTE 111, PHTE 112, PHTE 114, PHTE 115, PHTE 116, PHTE 118, PHTE 119, and PHTE 235.
Terms Typically Offered: Fall.

Philosophy (PHIL)

Courses

PHIL 105 Critical Thinking-GTAH3 3 Credits
Introduction to the basic skill of critical reading, writing, and thinking needed for the intelligent, responsible, and ethical construction of one's worldview, conduct of one's life, and execution of one's civic duties. Topics include: argument identification, analysis, and construction; avoidance of common fallacies of reasoning; common deceptive and manipulative uses of language; writing clear and convincing argumentative essays.
Essential Learning Categories: Humanities
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

PHIL 110 Introduction to Philosophy-GTAH3 3 Credits
Orientation to the discipline's concerns, branches, major schools of thought, and its relationship to other disciplines; a selection of readings from philosophers of all historical periods concerning major philosophical issues; practice in the process of philosophical reasoning, the critical analysis of philosophical writings, and the most basic rules of logic.
Essential Learning Categories: Humanities
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

PHIL 120 Ethics-GTAH3 3 Credits
Introduction to theoretical and applied ethics. Major moral philosophers and moral theories surveyed. A general approach to moral reasoning developed. Development applied to discussion of recent writings on issues such as: euthanasia, abortion, war, capital punishment, or affirmative action.
Essential Learning Categories: Humanities
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Spring.

PHIL 130 Philosophy of Religion-GTAH3 3 Credits
Exploration of fundamental issues regarding religion and examination of the principles of inquiry involved in dealing with such issues philosophically. Issues include the concept of God, arguments for the existence of God, the relationship between faith and reason, the validity of religious experience, and pluralism in world religions.
Essential Learning Categories: Humanities
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall.

PHIL 275 Introduction To Logic 3 Credits
Forms of reasoning, valid versus fallacious inferences, strong versus weak arguments. Designed to increase the ability to reason clearly and correctly, as well as to follow and critically evaluate the reasoning of others.
Terms Typically Offered: Fall.

PHIL 296 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

PHIL 340 The Examined Life 3 Credits
Introduction to practical philosophy. The application of philosophy to one's life in order to work toward the Socratic goal of living well. Topics covered include: Socratic thought, wisdom, Epicureanism, Stoicism, mindfulness, limiting beliefs, acceptance of reality, the self, and creativity.
Terms Typically Offered: Fall, Spring.

PHIL 350 The Roots of Western Thought 3 Credits
Examination of the development of Western philosophical thought from its inception with the ancient Hellenes, through the Hellenistic and Medieval periods.
Terms Typically Offered: Fall, Spring.

PHIL 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

PHIL 396 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

PHIL 410 Major Thinker 3 Credits
In-depth study of one or two important philosophers. Attention paid to their historical, cultural, scientific, and philosophical contexts. Examination of relevant portions of the philosophers' works, arguments, objections, and responses. Additional emphasis on the place of the thinkers in the "great conversation" that is philosophy via related primary and secondary texts. Specific topics vary by semester.
Terms Typically Offered: Fall, Spring.
Course may be taken 4 times for credit.

PHIL 420 Major Works 3 Credits
In-depth study of the major and classic philosophical works of a philosopher or philosophical school. Emphasis on the historical, cultural, scientific, and philosophic contexts of the works. Examination of texts as they are situated in the philosopher's or school's opus, along with important influential writings preceding and following works influenced by these texts. Specific topics vary by semester.
Terms Typically Offered: Fall, Spring.
Course may be taken 4 times for credit.

PHIL 430 Major Issues 3 Credits
In-depth study of major and classic philosophical issues, with attention to their historical development, major contributors, and seminal texts. Exploration of the important works surrounding the issue and important objections and responses, with a view to developing individual positions. Specific topics vary by semester.
Terms Typically Offered: Fall, Spring.
Course may be taken 4 times for credit.

PHIL 495 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

PHIL 496 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Physical Therapy (PHYT)

Courses

PHYT 500 Anatomy 4 Credits
Introduction to advanced concepts in gross anatomy, anatomical relationships, and spatial orientation of normal anatomic structures and common anatomic variations. This course will examine the forms and function of the human body and the relationship of surface and internal structures from different bodily systems.
Prerequisites: Admission into the Doctor of Physical Therapy program.
Corequisites: PHYT 503.
Terms Typically Offered: Fall.
Fees: Yes.

PHYT 501 Histology 1 Credit
Exploration of the basic cytology and histology of the human organism.
Prerequisites: Admission to the Doctor of Physical Therapy program.
Terms Typically Offered: Fall.

PHYT 502 Physiology 3 Credits
In-depth study of the normal functions and systems of the human body. Living processes are discussed at all hierarchical levels, molecular through organismic.
Prerequisites: Admission to the Doctor of Physical Therapy program.
Terms Typically Offered: Fall.

PHYT 503 Kinesiology-Biomechanics I 3 Credits
Analysis of normal human movement with detailed assessment of joint kinematics and kinetics.
Prerequisites: Admission to the Doctor of Physical Therapy program.
Corequisites: PHYT 503L.
Terms Typically Offered: Fall.
Fees: Yes.

PHYT 503L Kinesiology-Biomechanics I Laboratory 1 Credit
Analysis of normal human movement with detailed assessment of joint kinematics and kinetics. Laboratory experience accompanying PHYT 503.
Prerequisites: Admission to the Doctor of Physical Therapy program.
Corequisites: PHYT 503.
Terms Typically Offered: Fall.

PHYT 504 Kinesiology-Biomechanics II 3 Credits
Continuation of kinesiology, with analysis of normal human movement and detailed assessment of joint kinematics and kinetics.
Prerequisites: PHYT 500 and PHYT 503/PHYT 503L.
Corequisites: PHYT 504L.
Terms Typically Offered: Spring.

PHYT 504L Kinesiology-Biomechanics II Laboratory 1 Credit
Continuation of kinesiology, with analysis of normal human movement and detailed assessment of joint kinematics and kinetics.
Prerequisites: PHYT 500 and PHYT 503/PHYT 503L.
Corequisites: PHYT 504.
Terms Typically Offered: Spring.

PHYT 505 Essential Skills and Laboratory 3 Credits
Introduction to patient management, basic physical therapy procedures, and examination measures commonly used in physical therapy practice.
Prerequisites: Admission to the Doctor of Physical Therapy program.
Terms Typically Offered: Fall.
Fees: Yes.

PHYT 506 Professional Practice Considerations I 1 Credit
Exploration of professional ethics, values and responsibilities associated with physical therapy practice. Best practices for effectively educating others will also be introduced.
Prerequisites: Admission to the Doctor of Physical Therapy program.
Terms Typically Offered: Fall.

PHYT 507 Professional Practice Considerations II 2 Credits
Introduction to clinical reasoning and decision making, the ICF (International Classification of Functioning) model, the elements of patient/client management, documentation, and how to respond to emergencies in one's practice environment.
Prerequisites: PHYT 506.
Terms Typically Offered: Spring.

PHYT 509 Musculoskeletal Conditions I and Laboratory 3 Credits
Examination, evaluation, and intervention strategies for common musculoskeletal disorders affecting the spine.
Prerequisites: PHYT 500 and PHYT 503/PHYT 503L.
Corequisites: PHYT 504 and PHYT 504L.
Terms Typically Offered: Spring.

PHYT 510 Musculoskeletal Conditions II and Laboratory 3 Credits
Examination, evaluation, and intervention strategies for common musculoskeletal disorders affecting the lower extremity.
Prerequisites: PHYT 509.
Terms Typically Offered: Summer.

PHYT 511 Musculoskeletal Conditions III and Laboratory 3 Credits
Examination, evaluation, and intervention strategies for common musculoskeletal disorders affecting the upper extremity.
Prerequisites: PHYT 509.
Terms Typically Offered: Summer.

PHYT 512 Research I: Evidence-Based Practice 3 Credits
Introduction to research methods with practical application concerning how to best integrate evidence into clinical practice.
Prerequisites: Admission to the Doctor of Physical Therapy program.
Terms Typically Offered: Spring.

PHYT 513 Research II: Applied Statistics 3 Credits
Analysis of common research designs and statistics used in the contemporary physical therapy literature.
Prerequisites: PHYT 512.
Terms Typically Offered: Summer.

PHYT 514 Diagnostic Imaging 2 Credits
Introduction to the fundamentals of musculoskeletal imaging.
Prerequisites: Admission to the Doctor of Physical Therapy program.
Terms Typically Offered: Spring.

PHYT 515 Therapeutic Modalities 3 Credits
Exploration and application of the physical agents (e.g. heat, cold, microwave, electrophysiologic, etc.) used to treat patients in physical therapy clinical practice.
Prerequisites: Admission to the Doctor of Physical Therapy program.
Corequisites: PHYT 507.
Terms Typically Offered: Spring.
Fees: Yes.

PHYT 516 Pharmacology for Physical Therapy 2 Credits
Exploration of the primary drug classes and the physiologic basis of their action.
Prerequisites: PHYT 502.
Terms Typically Offered: Summer.

PHYT 517 Neuroscience 3 Credits
Orientation to the elements of the nervous system and how those elements interact to produce behavior.
Prerequisites: PHYT 501 and PHYT 502.
Terms Typically Offered: Summer.

PHYT 593 Capstone I 2 Credits
Application of evidence-based principles to develop a clinical question dealing with diagnosis or intervention. Once identified, students will initiate a literature review to gather evidence to answer the clinical question.
Prerequisites: PHYT 513.
Terms Typically Offered: Fall.

PHYT 599 Clinical Education I 3 Credits
Participation in full-time physical therapy practice under the direction of a licensed physical therapist at an assigned health care facility. Concentration of development of clinical skills as a novice clinician with focus on patient-centered care, evidence-based practice, and critical thinking.
Prerequisites: PHYT 600/PHYT 600L, PHYT 601, PHYT 604, PHYT 605, PHYT 606, and PHYT 607 as well as successful completion of the Matriculation Exam.
Terms Typically Offered: Spring.

PHYT 600 Exercise Physiology 2 Credits
Exploration of the effects of various types of exercise upon human body structure and function in healthy persons and those with select health conditions.
Prerequisites: PHYT 502.
Corequisites: PHYT 600L.
Terms Typically Offered: Fall.
Fees: Yes.

PHYT 600L Exercise Physiology Laboratory 1 Credit
Exploration of the effects of various types of exercise upon human body structure and function in healthy persons and those with select health conditions. Laboratory experience accompanying PHYT 600.
Prerequisites: PHYT 502.
Corequisites: PHYT 600.
Terms Typically Offered: Fall.

PHYT 601 Neuromuscular Conditions I and Laboratory 3 Credits
Examination, evaluation, and intervention strategies of neurologic disorders affecting adults.
Prerequisites: PHYT 517.
Terms Typically Offered: Fall, Spring.

PHYT 602 Neuromuscular Conditions II and Laboratory 3 Credits
Continuation of the Neuromuscular course series. Focus is on examination, evaluation and intervention strategies of neurologic disorders affecting adults.
Prerequisites: PHYT 601.
Terms Typically Offered: Spring.

PHYT 603 Neuromuscular Conditions III and Laboratory 3 Credits
Continuation of the Neuromuscular course series. Focus is on providing physical therapy services for patients with neuromuscular diseases and injury as well as incorporating the use of assistive technology and specialized techniques during rehabilitation.
Prerequisites: PHYT 602.
Terms Typically Offered: Summer.

PHYT 604 Medical and Surgical Conditions 3 Credits
Overview of the principles of pathology as it applies to the various systems, diagnoses, and conditions that patients exhibit.
Prerequisites: PHYT 517.
Terms Typically Offered: Fall.

PHYT 605 Lifespan I: Pediatrics and Laboratory 3 Credits
Provides foundational knowledge, skills, and abilities related to care of the pediatric patient/client.
Prerequisites: PHYT 504/PHYT 504L and PHYT 517.
Terms Typically Offered: Fall.

PHYT 606 Lifespan II: Geriatrics 2 Credits
Foundational knowledge, skills, and abilities related to care of the geriatric patient/client.
Prerequisites: PHYT 504/PHYT 504L.
Terms Typically Offered: Fall.

PHYT 607 Therapeutic Exercise and Laboratory 3 Credits
In-depth exploration of the theory and practical application of therapeutic exercise for patients with impairments categorized by body region.
Prerequisites: PHYT 504/PHYT 504L.
Terms Typically Offered: Fall.

PHYT 608 Professional Practice Considerations III 2 Credits
Exploration of administration, management, finance, and law as it relates to physical therapy practice.
Prerequisites: PHYT 507.
Terms Typically Offered: Spring.

PHYT 609 Professional Practice Considerations IV 2 Credits
Exploration of communication and teaching/learning in physical therapy as well as a detailed analysis of the psychosocial aspects of health and disability.
Prerequisites: PHYT 608.
Terms Typically Offered: Summer.

PHYT 610 Cardiovascular and Pulmonary Conditions and Laboratory 3 Credits
Examination, evaluation, and intervention for the patient/client with cardiovascular and/or pulmonary impairment.
Prerequisites: PHYT 600/PHYT 600L.
Terms Typically Offered: Spring.

PHYT 611 Differential Diagnosis and Laboratory 3 Credits
Exposure to a systematic clinical process to differentially diagnose and triage conditions that may present in a clinical encounter across physical therapy practice settings.
Prerequisites: PHYT 604.
Terms Typically Offered: Summer.

PHYT 612 Prosthetics-Orthotics and Laboratory 3 Credits
Comprehensive review of normal and pathologic gait, limb prostheses, the pre-prosthetic and prosthetic training phases of rehabilitation for patients with amputations as well as an introduction to limb orthotics.
Prerequisites: PHYT 599.
Terms Typically Offered: Summer.

PHYT 693 Capstone II 2 Credits
Continuation and refinement of the literature review initiated in PHYT 593. The previously identified clinical question will be answered using the format of a Critically Appraised Topic (CAT). Results will be presented to Physical Therapy faculty and students.
Prerequisites: PHYT 593.
Terms Typically Offered: Spring.

PHYT 694 Interprofessional Education Seminar 1 Credit
Exploration and engagement with other students from professional programs with the intent of cultivating collaborative practice in an effort to provide patient-centered care.
Prerequisites: PHYT 599.
Terms Typically Offered: Summer.

PHYT 699 Clinical Education II 4 Credits
Participation in full-time physical therapy practice under the direction of a licensed physical therapist at an assigned health care facility. Concentration of development of clinical skills as an intermediate clinician with focus on patient-centered care, evidence-based practice, and critical thinking.
Prerequisites: PHYT 599.
Corequisites: PHYT 799.
Terms Typically Offered: Fall.

PHYT 793 Clinical Education IV 6 Credits
Participation in full-time physical therapy practice under the direction of a licensed physical therapist at an assigned health care facility. Concentration of development of clinical skills as a competent entry-level clinician with focus on patient-centered care, evidence-based practice, and critical thinking.
Prerequisites: PHYT 799.
Terms Typically Offered: Spring.

PHYT 799 Clinical Education III 4 Credits
Participation in full-time physical therapy practice under the direction of a licensed physical therapist at an assigned health care facility. Concentration of development of clinical skills as an advanced clinician with focus on patient-centered care, evidence-based practice, and critical thinking.
Prerequisites: PHYT 599.
Corequisites: PHYT 699.
Terms Typically Offered: Fall.

Physician Assistant (PHAS)

Courses

PHAS 500 Advanced Human Anatomy 4 Credits
Introduction to advanced concepts in gross anatomy, anatomical relationships, and spatial orientation of normal anatomic structures and common anatomic variations. Examines the forms and function of the human body and the relationship of surface and internal structures from different bodily systems.
Prerequisites: Admission into the MPAS program.
Corequisites: PHAS 501, PHAS 502, PHAS 510, PHAS 520, and PHAS 530.
Terms Typically Offered: Spring.
Fees: Yes.

PHAS 501 Biomedical Science 4 Credits
Exploration of the physiologic and pathophysiologic process influencing the human organism. Explores basic principles of cell biology, histology, embryology, immunology, genetics, and infectious process. Focuses on pathophysiology related to the molecular, organ, and system level mechanisms of disease progression and manifestation.
Prerequisites: Admission into the MPAS program.
Corequisites: PHAS 500, PHAS 502, PHAS 510, PHAS 520, PHAS 530, and PHAS 541.
Terms Typically Offered: Spring.

PHAS 502 Clinical Pharmacology 3 Credits
Introduction to foundational concepts of pharmacotherapeutics, pharmacodynamics, pharmacokinetics, drug nomenclature, drug interactions, drug classifications, adverse effects, drug contraindications, and precautions. Prescriptive writing, prescriptive authority, and prescriptive medical-legal regulations will be explored.
Corequisites: PHAS 500, PHAS 501, PHAS 510, PHAS 520, PHAS 530, and PHAS 541.
Terms Typically Offered: Spring.

PHAS 503 Health Promotion and Disease Prevention 2 Credits
Theories and concepts involved in the planning and implementation of appropriate individual and community interventions to promote health and prevent disease in patients across the lifespan. Focuses on concepts of nutrition, exercise, and behavioral interventions important in health promotion.
Prerequisites: PHAS 511, PHAS 521, and PHAS 531.
Corequisites: PHAS 512, PHAS 522, and PHAS 532.
Terms Typically Offered: Fall.

PHAS 510 Foundation to Clinical Medicine 2 Credits
Introduction to concepts of holistic, relationship-centered medical principles needed for the clinical medicine series. Introduces principles of epidemiology and public health, government health care regulations, including HIPPA, OSHA, and meaningful use of electronic medical records. Focuses on common screening and diagnostic laboratory studies, as well as foundational skills in radiological imaging.
Corequisites: PHAS 500, PHAS 501, PHAS 502, PHAS 520, PHAS 530, and PHAS 541.
Terms Typically Offered: Spring.

PHAS 511 Clinical Medicine I 13 Credits
Application of a systematic organ-system approach to common medical issues encountered in primary care. Focuses on the etiology, epidemiology, clinical presentation, patient assessment, laboratory and diagnostic studies, pathology, diagnosis and therapeutic interventions, and disease management specific to the following modules: infectious disease, behavioral medicine, endocrinology, ophthalmology, otolaryngology, and gastroenterology.
Prerequisites: PHAS 500, PHAS 501, PHAS 502, PHAS 510, PHAS 520, and PHAS 530.
Corequisites: PHAS 521 and PHAS 531.
Terms Typically Offered: Summer.

PHAS 512 Clinical Medicine II 13 Credits
Continuation of the clinical medicine course series, with an organ-system approach to common medical issues encountered in primary care (B2.03). Focus is on the etiology, epidemiology, clinical presentation, patient assessment, laboratory and diagnostic studies, pathology, diagnosis and therapeutic interventions, and disease management specific to the following modules: dermatology, cardiovascular, pulmonary, genitourinary, renal, neurology, hematology, oncology, geriatrics, and rehabilitative care.
Prerequisites: PHAS 511, PHAS 521, and PHAS 531.
Corequisites: PHAS 503, PHAS 522, and PHAS 532.
Terms Typically Offered: Fall.

PHAS 513 Clinical Medicine III 13 Credits
Continuation of the clinical medicine series, systematic organ-system approach to common medical issues encountered in primary care. Focus is on the etiology, epidemiology, clinical presentation, patient assessment, laboratory and diagnostic studies, pathology, diagnosis and therapeutic interventions, and disease management specific to the following modules: women's health, orthopedics, rheumatology, pediatric populations, surgery, and emergency medicine.
Prerequisites: PHAS 503, PHAS 512, PHAS 522, and PHAS 532.
Corequisites: PHAS 523, PHAS 533, and PHAS 570.
Terms Typically Offered: Spring.

PHAS 520 History and Physical Exam 3 Credits
Introduction to principles and skills of inspection, auscultation, percussion, palpation, and diagnostic equipment needed to complete an accurate and thorough exam. Foundational concepts and skills to elicit both a comprehensive and problem-specific medical history. Content focused on documenting normal adult exam findings builds the foundation for recognition of abnormal findings in the clinical medicine course series and clinical skills labs.
Corequisites: PHAS 500, PHAS 501, PHAS 502, PHAS 510, PHAS 530, and PHAS 541.
Terms Typically Offered: Spring.
Fees: Yes.

PHAS 521 Patient Assessment, Diagnostics, and Clinical Skills Lab I 2 Credits
Application of skills necessary for eliciting a problem-focused patient history, diagnostic skills, and clinical procedures necessary for clinical practice. Focuses on the exam, diagnostic, and procedural skills related to topics specific to: infectious disease, behavioral medicine, endocrinology, ophthalmology, otolaryngology, and gastroenterology.
Prerequisites: PHAS 500, PHAS 501, PHAS 502, PHAS 510, PHAS 520, and PHAS 530.
Corequisites: PHAS 511 and PHAS 531.
Terms Typically Offered: Summer.
Fees: Yes.

PHAS 522 Patient Assessment, Diagnostics, and Clinical Skills Lab II 2 Credits
Continuation of skills necessary for eliciting a problem-focused patient history, diagnostic skills, and clinical procedures necessary for clinical practice. Focuses on the exam and procedural skills related to topics specific to: dermatology, cardiovascular, pulmonary, genitourinary, hematology, oncology, neurology, and geriatrics.
Prerequisites: PHAS 511, PHAS 521, and PHAS 531.
Corequisites: PHAS 503, PHAS 512, and PHAS 532.
Terms Typically Offered: Fall.
Fees: Yes.

PHAS 523 Patient Assessment, Diagnostics, and Clinical Skills Lab III 2 Credits
Continuation of patient assessment and diagnostic skills, focusing on the exam and procedural skills related to topics specific to: pediatric populations, women's health, orthopedics, rheumatology, surgery, and emergency medicine.
Prerequisites: PHAS 503, PHAS 512, PHAS 522, and PHAS 532.
Corequisites: PHAS 513, PHAS 533, and PHAS 570.
Terms Typically Offered: Spring.
Fees: Yes.

PHAS 530 Introduction to Research and Evidence-Based Medicine 2 Credits
Introduction to critically evaluating the medical literature and applying these principles to patient-centered care. Emphasis on research design, biostatistics, searching and evaluating medical literature, and application of evidence into the medical practice setting to improve patient-centered care.
Corequisites: PHAS 500, PHAS 501, PHAS 502, PHAS 510, PHAS 520, and PHAS 541.
Terms Typically Offered: Spring.

PHAS 531 Clinical Reasoning I 2 Credits
Development of clinical problem-solving and decision-making skills introduced in PHAS 530. Application of critical reasoning skills in case-based, small group collaboration to cover clinical medicine topics related to acute care. Emphasis on developing a differential diagnosis, patient assessment, treatment plans, and effective communication. Focus on skills of case presentations, utilizing point-of-care evidence, medical documentation, and informed consent.
Prerequisites: PHAS 500, PHAS 501, PHAS 502, PHAS 510, PHAS 520, and PHAS 530.
Corequisites: PHAS 511 and PHAS 521.
Terms Typically Offered: Summer.

PHAS 532 Clinical Reasoning II 2 Credits
Continuation of clinical problem-solving and decision-making skills introduced in PHAS 531. Application of critical reasoning skills in case-based, small group collaboration to cover clinical medicine topics related to chronic longitudinal care. Emphasis on enhancing interpersonal skills and application of evidence-based resources. Focus on the Physician Assistant professional role in team-based care.
Prerequisites: PHAS 511, PHAS 521, and PHAS 531.
Corequisites: PHAS 503, PHAS 512, and PHAS 522.
Terms Typically Offered: Fall.

PHAS 533 Clinical Reasoning III 2 Credits
Continuation of problem-solving and decision-making skill development as part of the clinical reasoning series. Application of critical reasoning skills in case-based, small group collaboration to cover clinical medicine topics related to emergent and urgent care. Emphasis on the management of the medically complex patient, focusing on referrals, supporting clinical rationale, interprofessional teams, and scope of practice.
Prerequisites: PHAS 503, PHAS 512, PHAS 522, and PHAS 532.
Corequisites: PHAS 513, PHAS 523, and PHAS 570.
Terms Typically Offered: Spring.

PHAS 541 PA Professionalism I 2 Credits
Integrative principles of professionalism, team-based patient-centered care, medical ethics, Physician Assistant practice issues, history of the profession, community service, and the business of health care delivery. Explore racial, ethnic, and socioeconomic health disparities and their impact on health outcomes and health systems.
Prerequisites: Admission to the MPAS program.
Terms Typically Offered: Spring.

PHAS 542 PA Professionalism II 2 Credits
Continuation of#the integrative principles of professionalism, practice issues, and the business of healthcare delivery. Explore billing and coding, medical liability, quality improvement, error prevention, and patient safety. Focus on professional organizations and the process of licensure, certification, credentialing, and contracts. Varying healthcare delivery systems and health policy will be explored.
Prerequisites: PHAS 513, PHAS 523, PHAS 533, and PHAS 570.
Terms Typically Offered: Summer.

PHAS 543 PA Professional Capstone 1 Credit
Synthesis of knowledge and skills in a scholarly project with direct application to quality improvement, health promotion, or community-based care. A written scholarly research paper is completed and a presentation is given relating findings to community health or clinical practice.
Prerequisites: PHAS 542.
Terms Typically Offered: Fall.

PHAS 570 Clinical Year Seminar 1 Credit
Focus on readiness for supervised clinical practice experiences. Clinical knowledge and skills, critical thinking, and professionalism are evaluated. Explore program policies, student self-care, coping with illness, injury and stress, electronic medical records, integrity, work ethic, and professional expectations.
Prerequisites: PHAS 503, PHAS 512, PHAS 522, and PHAS 532.
Corequisites: PHAS 513, PHAS 523, and PHAS 533.
Terms Typically Offered: Spring.
Fees: Yes.

PHAS 571 Family Medicine Rotation 4 Credits
Emphasis on the pathophysiology, diagnosis, and management of systemic disease and conditions unique to the fundamental principles of clinical practice of family medicine. Clinical preceptors supervise student participation in patient care, skill development, and growing medical knowledge, emphasizing care of patients across the lifespan.
Prerequisites: PHAS 513, PHAS 523, PHAS 533, and PHAS 570.
Terms Typically Offered: Fall, Spring, Summer.

PHAS 572 Behavioral Medicine and Mental Health Rotation 2 Credits
Emphasis on the pathophysiology, diagnosis, and management of systemic disease and conditions unique to the clinical practice of behavioral and mental health. Clinical preceptors supervise student participation in patient care, skill development, and growing medical knowledge in the discipline specific principles inherent in-patient care in a mental health setting.
Prerequisites: PHAS 513, PHAS 523, PHAS 533, and PHAS 570.
Terms Typically Offered: Fall, Spring, Summer.

PHAS 573 Internal Medicine Rotation 4 Credits
Emphasis on the pathophysiology, diagnosis, and management of systemic disease and conditions unique to the longitudinal care of patients with chronic health problems. Clinical preceptors supervise student participation in patient care, skill development, and growing medical knowledge, with exposure to geriatric populations and healthy aging.
Prerequisites: PHAS 513, PHAS 523, PHAS 533, and PHAS 570.
Terms Typically Offered: Fall, Spring, Summer.

PHAS 574 Women's Health Rotation 2 Credits
Emphasis on the pathophysiology, diagnosis, and management of systemic disease in a women's health setting. Clinical preceptors supervise student participation in patient care, skill development, and growing medical knowledge in obstetric, gynecologic, and women's preventive care.
Prerequisites: PHAS 513, PHAS 523, PHAS 533, and PHAS 570.
Terms Typically Offered: Fall, Spring, Summer.

PHAS 575 Pediatric Medicine Rotation 2 Credits
Emphasis on the pathophysiology, diagnosis, and management of systemic disease and conditions unique to pediatric clinical practice. Clinical preceptors supervise student participation in patient care, skill development, and growing medical knowledge specific to care for the pediatric patient.
Prerequisites: PHAS 513, PHAS 523, PHAS 533, and PHAS 570.
Terms Typically Offered: Fall, Spring, Summer.

PHAS 576 Surgery Rotation 4 Credits
Emphasis on evaluation and care of patients with commonly encountered conditions requiring surgical management. Clinical preceptors supervise student participation in patient care, skill development, and growing medical knowledge specific to the provision of care in the surgical setting.
Prerequisites: PHAS 513, PHAS 523, PHAS 533, and PHAS 570.
Terms Typically Offered: Fall, Spring, Summer.

PHAS 577 Emergency Medicine Rotation 4 Credits
Emphasis on the pathophysiology, diagnosis, and management of disease and conditions in the emergency department setting. Clinical preceptors supervise student participation in patient care, skill development, and growing medical knowledge of emergent medical conditions in the emergency department.
Prerequisites: PHAS 513, PHAS 523, PHAS 533, and PHAS 570.
Terms Typically Offered: Fall, Spring, Summer.

PHAS 578 Inpatient Medicine Rotation 4 Credits
Emphasis on the pathophysiology, diagnosis, and management of systemic disease and conditions unique to providing care in an inpatient setting. Clinical preceptors supervise student participation in patient care, skill development, and growing medical knowledge specific to medical or surgical inpatient care.
Prerequisites: PHAS 513, PHAS 523, PHAS 533, and PHAS 570.
Terms Typically Offered: Fall, Spring, Summer.

PHAS 579 Elective Rotation I 4 Credits
Pathophysiology, diagnosis, and management of systemic disease and conditions in a specialty or general core area of clinical practice approved by the program. Clinical preceptors supervise student participation in patient care, skill development, and growing medical knowledge in the approved clinical rotation.
Prerequisites: PHAS 513, PHAS 523, PHAS 533, and PHAS 570.
Terms Typically Offered: Fall, Spring, Summer.

PHAS 580 Elective Rotation II 4 Credits
Pathophysiology, diagnosis, and management of systemic disease and conditions in a second specialty or general core area of clinical practice approved by the program. Clinical preceptors supervise student participation in patient care, skill development, and growing medical knowledge in the approved clinical rotation.
Prerequisites: PHAS 513, PHAS 523, PHAS 533, and PHAS 570.
Terms Typically Offered: Fall, Spring, Summer.

PHAS 581 Summative Seminar 1 Credit
Summative evaluation for student demonstration of the knowledge, clinical skills, and professional competencies necessary to practice as an entry-level physician assistant. Preparation for the Physician Assistant National Certifying Exam (PANCE) is discussed.
Prerequisites: PHAS 513, PHAS 523, PHAS 533, and PHAS 570.
Terms Typically Offered: Spring.
Fees: Yes.

PHAS 595 Independent Study 1-3 Credits
Independent study if student needs additional instruction in a core content area.
Terms Typically Offered: Fall, Spring, Summer.

Physics (PHYS)

Courses

PHYS 100 Concepts of Physics-GTSC2 3 Credits
Introduction to physics. Emphasis on basic conceptual aspects described in everyday language. Elementary mathematics introduced when necessary. Survey of topics such as Newtonian mechanics, heat and energy, electricity and magnetism, light, relativity, and quantum theory. The course is designed for majors outside of the sciences.
Essential Learning Categories: Natural Sciences
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

PHYS 101 Elementary Astronomy-GTSC2 3 Credits
Introduction to astronomy. Survey of topics such as observational astronomy, the solar system, stellar astronomy, galaxies and cosmology. Emphasis on basic conceptual aspects of astronomy. Minimal use of elementary mathematics such as basic arithmetic, fractions, square roots, and powers. The course is designed for students in all majors.
Essential Learning Categories: Natural Sciences
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

PHYS 103 General Astronomy-GTSC1 3 Credits
Introductory survey of astronomy, including apparent motions of objects in the sky, light, telescopes, solar system objects, exoplanets, the sun, stars, galaxies, and cosmology. Basic math skills (arithmetic, powers, scientific notation, unit conversions) will be used frequently. This course is designed for students in all majors.
Corequisites: PHYS 103L.
Essential Learning Categories: Natural Science with lab - Both the lab and lecture must be completed
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

PHYS 103L General Astronomy Laboratory-GTSC1 1 Credit
Basics of night sky observing, telescopes and their use. Emphasis on astronomical image acquisition and analysis to a variety of applications, including: asteroid tracking, exoplanet detection, observing motions of orbiting moons and stars to determine properties of planets and stars. This course is designed for students in all majors. Lab component required for PHYS 103.
Corequisites: PHYS 103.
Essential Learning Categories: Natural Science with lab - Both the lab and lecture must be completed
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

PHYS 111 General Physics I-GTSC1 4 Credits
Algebra-based introduction to classical mechanics and thermodynamics. Includes mechanics, energy and momentum conservation, thermodynamics, and statistical mechanics. Extensive use of high school level algebra and trigonometry.
Corequisites: PHYS 111L.
Essential Learning Categories: Natural Science with lab - Both the lab and lecture must be completed
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

PHYS 111L General Physics I Laboratory-GTSC1 1 Credit
Algebra-based introduction to classical mechanics and thermodynamics. Includes mechanics, energy and momentum conservation, thermodynamics, and statistical mechanics. Extensive use of high school level algebra and trigonometry.
Corequisites: PHYS 111.
Essential Learning Categories: Natural Science with lab - Both the lab and lecture must be completed
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

PHYS 112 General Physics II-GTSC1 4 Credits
Algebra-based introduction to classical electromagnetism, optics, and modern physics. Detailed coverage of electrostatics, electric circuits, magnetism, electromagnetic waves, geometrical optics, and wave optics. Topics from modern and atomic physics. Extensive use of algebra and trigonometry.
Prerequisites: PHYS 111/PHYS 111L, or PHYS 131/PHYS 131L.
Corequisites: PHYS 112L.
Essential Learning Categories: Natural Science with lab - Both the lab and lecture must be completed
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

PHYS 112L General Physics II Laboratory-GTSC1 1 Credit
Algebra-based introduction to classical electromagnetism, optics, and modern physics. Detailed coverage of electrostatics, electric circuits, magnetism, electromagnetic waves, geometrical optics, and wave optics. Topics from modern and atomic physics. Extensive use of algebra and trigonometry.
Prerequisites: PHYS 111/PHYS 111L, or PHYS 131/PHYS 131L.
Corequisites: PHYS 112.
Essential Learning Categories: Natural Science with lab - Both the lab and lecture must be completed
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

PHYS 131 Fundamental Mechanics-GTSC1 4 Credits
Calculus-based introduction to classical mechanics. Detailed coverage of the kinematics and dynamics of linear and rotational motion using Newton's Laws, momentum, and energy conservation. The mathematics of calculus and vectors is used throughout.
Prerequisites: MATH 151 or MATH 135 (either may be taken concurrently).
Corequisites: PHYS 131L.
Essential Learning Categories: Natural Science with lab - Both the lab and lecture must be completed
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

PHYS 131L Fundamental Mechanics Laboratory-GTSC1 1 Credit
Calculus-based introduction to classical mechanics. Detailed coverage of the kinematics and dynamics of linear and rotational motion using Newton's Laws, momentum, and energy conservation. The mathematics of calculus and vectors is used throughout.
Prerequisites: MATH 151 or MATH 135 (either may be taken concurrently).
Corequisites: PHYS 131.
Essential Learning Categories: Natural Science with lab - Both the lab and lecture must be completed
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

PHYS 132 Electromagnetism and Optics-GTSC1 4 Credits
Calculus-based introduction to classical electromagnetism and optics. Detailed coverage of electrostatics, electric circuits, magnetism, electromagnetic waves, geometrical optics, and wave optics. The mathematics of calculus and vectors is used throughout.
Prerequisites: PHYS 131/PHYS 131L, and MATH 152 or MATH 136 (either may be taken concurrently).
Corequisites: PHYS 132L.
Essential Learning Categories: Natural Science with lab - Both the lab and lecture must be completed
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

PHYS 132L Electromagnetism and Optics Laboratory-GTSC1 1 Credit
Calculus-based introduction to classical electromagnetism and optics. Detailed coverage of electrostatics, electric circuits, magnetism, electromagnetic waves, geometrical optics, and wave optics. The mathematics of calculus and vectors is used throughout.
Prerequisites: PHYS 131/PHYS 131L, and MATH 152 or MATH 136 (either may be taken concurrently).
Corequisites: PHYS 132.
Essential Learning Categories: Natural Science with lab - Both the lab and lecture must be completed
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

PHYS 196 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

PHYS 230 Intermediate Dynamics 3 Credits
Study of introductory fluid dynamics and thermodynamics, relativistic kinematics and dynamics, and intermediate-level classical waves and vibrations.
Prerequisites: PHYS 132/PHYS 132L, and MATH 253 (may be taken concurrently).
Terms Typically Offered: Fall.

PHYS 231 Modern Physics 3 Credits
Introduction to quantum theory. Key phenomena in the early development of quantum theory. Quantization of measurement outcomes, particularly energy. Schrodinger equation in one dimension applied to the infinite well, barriers, and the harmonic oscillator. Schrodinger equation in three dimensions applied to the hydrogen atom. Differential equation techniques introduced where necessary.
Prerequisites: PHYS 132/PHYS 132L, and MATH 253 (may be taken concurrently).
Terms Typically Offered: Spring.

PHYS 251 Electronics for Scientists 3 Credits
Introduction to electric circuits and electronic instrumentation for scientists. Emphasizes a practical approach, with students learning about electronic devices and how they work by building working circuits. Topics explored include: passive circuits with resistors and capacitors, including applications in electric filtering; diodes; transistors; op-amps; timing circuits; feedback and amplification; and digital circuits.
Prerequisites: PHYS 132 or PHYS 112.
Terms Typically Offered: Fall.

PHYS 252 Intermediate Laboratory 3 Credits
Performance of experiments in optics, acoustics, and modern physics. Experiments will include measuring the speed of light, measuring the wavelength of atomic discharge lines, X-ray diffraction, and measuring h/e, among others. Emphasis will be on experimental design, use of modern instrumentation, preparation of lab reports, and data analysis.
Prerequisites: PHYS 231 (may be taken concurrently).
Terms Typically Offered: Spring.

PHYS 296 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

PHYS 300 New Directions in Science 3 Credits
A survey of recent developments in science. This course is open to qualified students in liberal arts as well as the sciences. Faculty from various disciplines will participate. Topics will be drawn from astronomy, biology, chemistry, geology, physics, engineering, and applied mathematics.
Prerequisites: Permission of instructor.

PHYS 301 Introduction to Space Science 3 Credits
The history and technology of space and space exploration. Designed for all non-science majors, particularly prospective K-12 teachers. Topics include: the solar system, space environments, space travel, satellite communication and design.
Prerequisites: Junior or senior status, or permission of instructor.

PHYS 311 Electromagnetic Theory I 3 Credits
Mature study of electromagnetic fields. Electrostatics and magnetostatics presented. Special techniques, including multipole expansion of fields, analyzed. Electrodynamics introduced leading to Maxwell's equations.
Prerequisites: MATH 253; and PHYS 230 or PHYS 231.
Terms Typically Offered: Fall.

PHYS 312 Electromagnetic Theory II 3 Credits
Applications of Maxwell's equations to electromagnetic phenomena. Electric and magnetic fields in matter. Conservation laws in electromagnetism. Electromagnetic waves, reflection, and transmission. Electromagnetic fields produced by non-stationary sources. Electromagnetic radiation.
Prerequisites: PHYS 311.
Terms Typically Offered: Spring.

PHYS 321 Quantum Theory I 3 Credits
Foundations and applications of quantum physics. Fundamental descriptions of quantum states, measurements, and time evolution for general quantum systems. Applications to particles in one or more spatial dimensions, harmonic oscillators, angular momentum, and the hydrogen atom. May also include spin-1/2 particles, photons, multiple quantum systems, and quantum paradoxes. Introduces linear algebra and solving differential equations for quantum physics.
Prerequisites: PHYS 231; and MATH 260 or MATH 236.
Terms Typically Offered: Spring.

PHYS 331 Advanced Laboratory I 3 Credits
Exploration of experimental design and technique. Laboratory investigations provide experience in instrumental methods, planning of laboratory experiments, data analysis, preparation of reports according to professional standards, and training in the use of computers for data acquisition and processing. The experiments to be performed are selected from electromagnetism, atomic, nuclear, and solid-state physics.
Prerequisites: PHYS 252.
Terms Typically Offered: Spring.

PHYS 342 Advanced Dynamics 3 Credits
In-depth survey of classical mechanics, including: advanced treatment of Newtonian dynamics, conservation laws, gravitation, and the Lagrangian and Hamiltonian formulations of dynamics. Topics may include central force motion, systems of particles, non-inertial reference frames, rigid bodies, oscillating systems, coupled oscillations, and waves on a string.
Prerequisites: PHYS 230; and MATH 260 or MATH 236.
Terms Typically Offered: Fall.

PHYS 352 History and Philosophy of Physics 3 Credits
Material varies from year-to-year. The course addresses problems in the interpretation and development of physics. Case studies of crucial experiments are analyzed. The interaction of physics with other philosophical and cultural pursuits is discussed.
Prerequisites: One year of physics or permission of instructor.

PHYS 362 Statistical and Thermal Physics 3 Credits
Study of the physics of bulk matter. Fundamental principles of quantum mechanics, statistical methods employed to explain macroscopic laws of thermodynamics to make detailed predictions about the large-scale behavior of solids, liquids, and gases. Applications include specific heat of solids, thermal radiation, magnetic susceptibilities, stellar equilibrium, and chemical reactions.
Prerequisites: CHEM 321 or PHYS 230; and MATH 253.
Terms Typically Offered: Spring.

PHYS 372 General Relativity 3 Credits
Introduction to Einstein's theory of general relativity. Newtonian gravitation and Einstein's theory of special relativity are reviewed. Topics may include spherically symmetric stars, static and rotating black holes, FRW cosmologies, gravitational waves, and wormholes.
Prerequisites: PHYS 230; and MATH 236 or MATH 260.
Terms Typically Offered: Fall, Spring.

PHYS 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

PHYS 396 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

PHYS 422 Quantum Theory II 3 Credits
Continuation of PHYS 321. Central forces, complete derivation of hydrogen atom energy levels and eigenstates. Perturbation theory and other approximately techniques. Other selected topics include: multiple quantum systems, scattering, quantum foundations.
Prerequisites: PHYS 321.

PHYS 441 Solid State Physics 3 Credits
Structure and properties of solids. This course is a study of the crystalline state of matter, including crystal classifications, vibrational specific heats, electronic structures and conductivities, cohesive energies, magnetic susceptibility, and optical properties.
Prerequisites: PHYS 321.
Terms Typically Offered: Fall, Spring.

PHYS 471 Computational Physics I 3 Credits
Application of computational techniques to solving and visualizing physical problems. Numerical integration, differentiation, and matrix methods covered. Techniques of solving various regular and partial differential equations studied. Prior programming experience is not required.
Prerequisites: MATH 260 or MATH 236; and PHYS 132.
Terms Typically Offered: Fall.

PHYS 472 Computational Physics II 3 Credits
A continuation of PHYS 471. Advanced topics in solving partial differential equations and simulating physical systems using modern parallel computing covered. MPI, Open MP, and their applications to physical phenomenon on Linux workstations covered. Introduction to translating analytical problems to parallel computational problems
Prerequisites: PHYS 471.

PHYS 473 Modern Optics 3 Credits
Modern principles and applications of optics. Optical models including ray and wave optics presented. Laws of reflection and refraction studied within the context of both ray and wave optics. Reflectivity and transmissivity analyzed. Superposition and wave interference discussed. Diffraction theory used in a number of applications. Concludes with an introduction to lasers and quantum optics.
Prerequisites: PHYS 311.

PHYS 482 Senior Research 1 Credit
An individual research project, supervised by a faculty advisor. The project may be selected from experimental or theoretical topics. The research concludes with a formal report written in accordance with The American Institute of Physics Style Manual. This course is normally taken twice in the senior year.
Course may be taken 2 times for credit.

PHYS 487 Structured Research 1-3 Credits
Physics research under the direct guidance of a faculty member. Designed for advanced junior and senior level students.
Prerequisites: Permission of instructor.

PHYS 494 Physics Seminar 1 Credit
Seminars covering selected topics relevant to physics or closely related fields. Weekly presentations by faculty, students, and outside guests.
Prerequisites: Upper division standing.
Terms Typically Offered: Fall, Spring.
Course may be taken 4 times for credit.

PHYS 495 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

PHYS 496 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

PHYS 596 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Plumbing (PLMB)

Courses

PLMB 102 Plumbing Service and Repair 4 Credits
Diagnosis and repair of common plumbing component and system problems. Includes faucet repair, water heater replacement/repair, drain cleaning, water closet repair, piping repairs, identifying sources of leaks, and evaluating problems for repair or replacement. Incorporates classroom and shop activities; the uses of plastic, copper, steel, cast iron pipe, and threaded fittings in the plumbing industry; job safety; and isometric drawing.
Terms Typically Offered: Spring.
Fees: Yes.

PLMB 104 International Plumbing Code 4 Credits
Assistance for plumbers working in jurisdictions where the International Plumbing Code (IPC) has been adopted. This course will review the IPC and help the plumber apply the requirements of this code to the installation of plumbing systems.
Terms Typically Offered: Spring.
Fees: Yes.

Political Science (POLS)

Courses

POLS 101 American Government-GTSS1 3 Credits
Structures and functions of the American political system, including the constitutional development of federalism and separation of powers. Citizen participation and influence in politics, the congress, presidency and the supreme court, and public policy including civil rights and liberties will also be covered.
Essential Learning Categories: Social and Behavioral Sciences
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

POLS 151 Introduction to Political Ideas 3 Credits
Introduction to the major theories of human political organization and ideas that frame those approaches. Emphasis on theories of democracy, authoritarianism, liberalism, conservatism and contemporary ideologies of liberation (feminism, environmentalism and race).
Essential Learning Categories: Social and Behavioral Sciences
Terms Typically Offered: Fall, Spring.

POLS 196 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

POLS 201 Introduction to Political Inquiry 2 Credits
Introduction to major tools of investigation in the study of politics. Examination of modern scientific research design and methods. Additional emphasis on discipline-specific skills in critical thinking, information literacy, writing and citation mechanics, and oral communication.
Terms Typically Offered: Fall.

POLS 236 State and Local Government 3 Credits
Theories of state formation and constitutional development, city charters, county government, and intergovernmental relations, with emphasis on Colorado.
Terms Typically Offered: Fall, Spring.

POLS 261 Comparative Politics-GTSS1 3 Credits
Introduction to conceptual models and approaches utilized in the comparative study of nations and their politics. Application of these theories to selected democratic, communist, and developing political systems.
Essential Learning Categories: Social and Behavioral Sciences
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

POLS 270 World Politics 3 Credits
Introduction to structures, processes, and behaviors shaping world politics. Emphasis on states and their interactions as well as non-state actors and cultural, economic, and environmental forces shaping an emerging world community.
Essential Learning Categories: Social and Behavioral Sciences
Terms Typically Offered: Fall, Spring.

POLS 295 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

POLS 296 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

POLS 324 United States Congress 3 Credits
Study of the United States Congress. Attention will be given to the development of Congress, congressional operations, and the election of members of Congress.
Prerequisites: POLS 101.
Terms Typically Offered: Spring.

POLS 325 The American Presidency 3 Credits
Study of the American chief executive, emphasizing the historical development of the office, the various functions of the modern chief executive, and a brief comparison with the executive officer of other national states.
Terms Typically Offered: Fall.

POLS 328 American Court Systems 3 Credits
Overview of the American court system at the local, state, and national levels, including consideration of the impact of prosecutors, defense personnel, judges, and other factors on court decisions and the criminal justice system.
Prerequisites: CRMJ 201 or POLS 101.
Equivalent Course(s): CRMJ 328
Terms Typically Offered: Fall, Spring.

POLS 333 Rural Politics and Civic Engagement 3 Credits
Collaboration with classmates and external community stakeholders to analyze a local rural issue, write a report, and propose solutions. Exploration of the various theories and issues of rural politics in the United States.
Terms Typically Offered: Fall.

POLS 335 Political Campaigns 3 Credits
Study of the role of political campaigns in the American political system. Focus on the practical elements of the modern campaign by introducing students to a variety of political consultants and practitioners from across the political spectrum.
Terms Typically Offered: Fall.

POLS 342 Public Administration 3 Credits
Historical development of public administration, including organizational structure and theory, management, personnel administration, fiscal administration, and administrative responsibility.
Terms Typically Offered: Spring.

POLS 351 Public and Elite Political Behavior 3 Credits
Behavior of elected officials and the public in American politics. Achievement of power and how actions are evaluated via public opinion and voting. Role of media in American politics explored.
Prerequisites: POLS 101.
Terms Typically Offered: Spring.

POLS 352 Religion and Politics 3 Credits
Interactions between religion and politics in the United States and several liberal democracies, as well as the effects of these interactions on international relations.
Terms Typically Offered: Fall.

POLS 353 Politics of Human and Natural Resources 3 Credits
Study of politics and public policy surrounding natural resource allocation, preservation, development and consumption by human social systems. Emphasis on challenges of public policy formation and implementation in areas of land, water, energy, minerals, food, and habitat at domestic and global levels.
Terms Typically Offered: Fall.

POLS 354 Political Geography 3 Credits
Exploration of ways in which physical landscapes shape political attitudes, ideas, and institutions. Emphasis on key concepts of place, mapping, borders, territory, nationalism, and ecological and social impact of natural settings.
Equivalent Course(s): GEOG 354
Terms Typically Offered: Fall.

POLS 356 Indigenous Politics 3 Credits
Exploration of interactions between the state and various indigenous peoples around the world. Internal political structure and practice of selected indigenous groups and the role of indigenous nations in global politics.
Terms Typically Offered: Fall, Spring.

POLS 366 Government and Politics of Asia 3 Credits
Exploration of political systems of China, Japan, Korea, India, and Indonesia. Emphasizes political development, sources, processes, and evaluation of policy making, and contemporary challenges facing these countries.
Terms Typically Offered: Fall.

POLS 372 Peace and Conflict Studies 3 Credits
Interdisciplinary exploration of nature and causes of conflict, conflict resolution, and foundations of justice and peace. Analyzes historical and contemporary conflicts, both civil and international, and examines how evidence and theory are used to understand peace and conflict.
Terms Typically Offered: Spring.

POLS 373 Global Politics of Women and Gender 3 Credits
Exploration of women and gender in global security and the global political economy. Topics include: violence and war, transnational activism, migration, development, human rights, sex work, and domestic work. Examines contemporary case studies and how evidence and theory are used to explain the gendered nature of global security and economic systems.
Terms Typically Offered: Spring.

POLS 386 Study Away: Off-Campus Learning Experience 1-3 Credits
Exploration of cultural values, political structures, and political behaviors in an off-campus setting. Locations and site-specific activities will vary. Supplementation of student knowledge of political theories and institutions through direct experience and field instruction. Encouragement towards being a global citizen and an ambassador of one's own culture.
Terms Typically Offered: Summer.

POLS 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

POLS 396 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

POLS 399 Internship 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

POLS 412 Constitutional Law 3 Credits
Analysis of American constitutional theory as articulated by the U.S. Supreme Court. Specific topics include the nature of judicial review, the powers of the President and Congress, federalism, the regulation of commerce, and the development of substantive due process.
Prerequisites: CRMJ 310, CRMJ 320, and CRMJ 328.
Equivalent Course(s): CRMJ 412
Terms Typically Offered: Fall.

POLS 452 Political Theory: Classical and Medieval 3 Credits
Study of the development of political theory around the ancient world. Emphasizes the teaching of main social systems and the major theorists in those systems: Egypt, Mesopotamia, Israel, India, China, Greece, Rome, Christianity, Islam, and Medieval thought. Develops ideas in relation to historical and cultural contexts, textual consistency, and the evolving tradition of political discourse.
Terms Typically Offered: Fall.

POLS 453 Political Theory: Modern 3 Credits
Study of the development of political theory in the Western tradition. Emphasizes the teaching of main thinkers: Socrates, Plato, Aristotle, Augustine, Aquinas, More, Machiavelli, Hobbes, Locke, Rousseau, Mill, and Marx. Develops ideas in relation to historical and cultural contexts, textual consistency, and the evolving tradition of political discourse in Western civilization.
Terms Typically Offered: Fall.

POLS 462 Public Policy: Theory and Practice 3 Credits
Overview of theory and practice of the making and implementation of public policy. Examination of participants and stages of public policy making. Analysis of success/failure of controversial public policies. Topics may include: healthcare policy, drug policy, and welfare.
Terms Typically Offered: Spring.

POLS 471 International Organizations and Law 3 Credits
Analysis of management of world politics and economics by networks of states, international and regional organizations, and non-state participants. Includes human and environmental security, human rights, global health, organized crime, global political economy, and development. Examines successful and unsuccessful problem management in a globalized world.
Prerequisites: POLS 270.
Terms Typically Offered: Spring.

POLS 475 American Foreign and National Security Policy 3 Credits
American foreign and national security policy, with emphasis on 1945 to the present and beyond. Examination of foreign and domestic factors shaping policy, the mechanisms and dynamics of policy making, the role of perception and motives underlying decision and action, and case studies of historical crises and contemporary debates.
Terms Typically Offered: Fall.

POLS 482 International Relations Theory 3 Credits
Exploration of the major theoretical approaches to international relations and global politics. Special emphasis placed on foundational concepts such as the state, sovereignty, governance, borders, and emerging issues of identity, non-state participants, and human security.
Prerequisites: POLS 270.
Terms Typically Offered: Fall.

POLS 484 Environmental Political Theory 3 Credits
Study of major philosophies and their treatment of the environment. Special emphasis on indigenous and alternative ecological perspectives, extension of rights and agency to non-human entities, and the diversity of theories guiding the modern environmental movement.
Terms Typically Offered: Fall.

POLS 488 Environmental Politics and Policy 3 Credits
Introduction to the political issues and problems associated with patterns of socio-economic growth and its environmental impact at both domestic and global levels of analysis.
Terms Typically Offered: Fall, Spring.

POLS 493 Senior Capstone 1 Credit
Capstone experience for political science program. Cumulative seminar on political science with emphasis on application of knowledge acquired throughout the degree program. Preparation for transition into political work, graduate school or law school.
Prerequisites: POLS 201 and senior standing.
Terms Typically Offered: Fall.

POLS 495 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

POLS 496 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

POLS 499 Internship 1-15 Credits
May be performed in areas relating to Political Science, such as civic, political, or legal. Internships will be conducted in Mesa County, the Denver legislature, or in Washington, D.C.
Prerequisites: Junior or senior standing.
Course may be taken multiple times up to maximum of 15 credit hours.

POLS 501 Theories of Political Science 3 Credits
Graduate-level introduction to theoretical approaches in political science. Topics will include basic issues in the philosophy of social science, as well as theoretical frameworks that cut across the sub-fields of the discipline: rational choice, social constructivism, institutionalism, Marxism, feminism, and post-structuralism. Approaches unique to the three major subfields of comparative politics, international relations, and political philosophy will also be covered.
Prerequisites: Admission into Social Studies Graduate Certificate Program.

POLS 505 American Government 3 Credits
Graduate-level introduction to the foundations of American government. The course will cover major readings and theories in American government. Topics include American political development, institutions (Congress, presidency, judiciary), political behavior (public opinion, voting and elections, political parties and interest groups), and public policy.
Prerequisites: Admission into Social Sciences Graduate Certificate Program.

Psychology (PSYC)

Courses

PSYC 150 General Psychology-GTSS3 3 Credits
Introduction to psychological principles, theories, and research methods applied to the study of behavior and mental processes. Encourages application of psychological knowledge, science, and theories to enhance human life.
Essential Learning Categories: Social and Behavioral Sciences
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring, Summer.

PSYC 201 Orientation to the Psychology Major 3 Credits
Foundations for further study in psychology. Content includes CMU major requirements, career planning, applying to graduate school, and self-management skills. Emphasis on research writing using APA Style.
Prerequisites: Declared psychology major, PSYC 150 and ENGL 112.
Terms Typically Offered: Fall, Spring.

PSYC 202 APA Style of Writing for Psychology Minors 1 Credit
Research writing in psychology using APA style. Not intended for psychology majors.
Prerequisites: PSYC 150, ENGL 112, and declared minor in psychology.
Terms Typically Offered: Fall, Spring.

PSYC 216 Research Methods in Psychology 4 Credits
Fundamentals of psychological research techniques used in the study of behavior and mental processes. Discourse on experimental and correlational design, participant recruitment, ethical practices, and management/analysis of data. Development of skills associated with professional writing, data analysis, collaboration, and presentation of research.
Prerequisites: PSYC 150, STAT 215, and PSYC 201.
Terms Typically Offered: Fall, Spring.

PSYC 233 Human Growth and Development-GTSS3 3 Credits
Exploration of major topics, theories, and methodological approaches in the study of human lifespan development. Focuses on physical, cognitive, emotional, and social development in infancy, early and middle childhood, adolescence, emerging and middle adulthood, and late adulthood. Development of skills associated with recognizing changes throughout the lifespan and understanding how psychology relates to everyday life.
Essential Learning Categories: Social and Behavioral Sciences
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring, Summer.

PSYC 296 Topics 1-4 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

PSYC 300 Health Psychology 3 Credits
Examination of what it means to be healthy. Investigation of the connection between behavior, illness, and both physical and mental health.
Prerequisites: PSYC 150 or PSYC 233.
Terms Typically Offered: Fall, Spring.

PSYC 306 Suicide Intervention Training 1 Credit
Clear and direct method to intervene with those at risk of suicide. Students learn to identify risk factors, develop safety plans, practice skills to intervene, and develop an understanding of resources available. This is a two day (16 hour) suicide intervention workshop.
Terms Typically Offered: Summer.

PSYC 310 Child Psychology 3 Credits
Study of the principles of human development and psychology from conception to puberty.
Prerequisites: PSYC 150.
Terms Typically Offered: Fall, Spring, Summer.

PSYC 314 Psychology of Learning 3 Credits
Classic and modern explanations of the phenomena of learning in both lower animals and humans. Classical and operant conditioning covered in detail.
Prerequisites: Junior or senior status and PSYC 150.
Terms Typically Offered: Fall, Spring, Summer.

PSYC 320 Social Psychology 3 Credits
Social influences upon behavior, with consideration given to topics such as: social perception, attitude formation and change, communication, and leadership.
Prerequisites: PSYC 150.
Terms Typically Offered: Fall, Spring, Summer.

PSYC 323 Multicultural Service Learning 3 Credits
Exploration of multiculturalism through ethnography and community service field work.
Prerequisites: PSYC 201.
Terms Typically Offered: Spring.

PSYC 330 Psychology of Adolescents and Emerging Adulthood 3 Credits
Study of principles of human development (biological, cognitive, and social/emotional), from puberty through emerging adulthood.
Prerequisites: PSYC 150.
Terms Typically Offered: Fall, Spring.

PSYC 335 Psychology of Women 3 Credits
Brief account of the role of women in mythology and history, followed by coverage of women's heritage in psychology. Includes gender specific aspects of physical, psychological, and social development. Current areas of interest will be included, such as communication, work related issues, and relationships.
Prerequisites: PSYC 150.
Terms Typically Offered: Spring.

PSYC 340 Abnormal Psychology 3 Credits
Concepts related to psychopathology and personality disorders, including functional causation, general psychological theory, and behavior deviation patterns.
Prerequisites: PSYC 150.
Terms Typically Offered: Fall, Spring, Summer.

PSYC 345 Abnormal Child Psychology 3 Credits
Child and adolescent disorders within the context of a developmental framework. This course will encourage the developmental consideration that influence diagnosis, behavioral manifestation, and treatment of childhood disorders as well as the contextual influences on development, maintenance, and treatment of childhood disorders.
Prerequisites: PSYC 233 or PSYC 310.
Terms Typically Offered: Fall, Spring.

PSYC 350 Psychology of Adulthood 3 Credits
Study of principles of human development (biological, cognitive, and social/emotional), from the latter part of young adulthood through late adulthood.
Prerequisites: PSYC 150.
Terms Typically Offered: Fall, Spring.

PSYC 370 Cross-Cultural Psychology 3 Credits
Survey of theory and methods in cross-cultural psychology.
Prerequisites: PSYC 150.
Terms Typically Offered: Spring.

PSYC 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

PSYC 396 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

PSYC 400 Psychological Testing 3 Credits
Explorations of the theory, problems, methods, and content of psychological measurement, including concepts of the purpose of testing, test administration and scoring, standardization, reliability, validity test evaluation, and a survey of the major tests used in educational and psychological testing.
Prerequisites: PSYC 150 and STAT 215.
Terms Typically Offered: Fall, Spring.

PSYC 401 Sport Psychology 3 Credits
Introduction to theories and research in Sport Psychology. Includes aggression and violence in sport, psychological characteristics of participants, sexual identity, and motivation.
Prerequisites: PSYC 150.
Terms Typically Offered: Fall, Spring, Summer.

PSYC 408 Foundations of School Counseling 3 Credits
Examination of conceptual foundation of the counseling and school counseling professions, including history, philosophy, principles, and trends. Includes functions of counselors, administrators, teachers, and parents in meeting students' needs in a K-12 education setting.
Prerequisites: PSYC 233 or PSYC 310.
Terms Typically Offered: Fall.

PSYC 410 Drugs and Human Behavior 3 Credits
Study of pharmacological effects and behavioral consequences of self-administered depressants, stimulants, and euphoriants; of marijuana, alcohol and tobacco; and of medicines. Prevention of drug-related problems is considered briefly.
Prerequisites: Junior or senior standing.
Terms Typically Offered: Spring.

PSYC 411 Human Sexuality 3 Credits
Study of the biological, psychological, and social bases and manifestations of human sexual behavior. Includes theory, research and diversity in sexuality, the biology of sex, gender development, sexual diseases, deviancy and coercion.
Prerequisites: PSYC 216.
Terms Typically Offered: Fall, Spring.

PSYC 412 Industrial and Organizational Psychology 3 Credits
Study of the psychological principles applied to formal, productive organizations such as businesses, governments, and schools. Personnel selection, placement, training, evaluation, motivation to work, job satisfaction, and morale are examined.
Prerequisites: PSYC 150.
Terms Typically Offered: Fall, Spring.

PSYC 414 History of Psychology 3 Credits
Exploration of the systems and theories of modern psychology and the development of scientific psychology since 1879.
Prerequisites: PSYC 150, and standing as a junior or senior psychology major.
Terms Typically Offered: Fall, Spring, Summer.

PSYC 416 Memory and Cognition 3 Credits
Study of the mental processes that underlie our abilities to recognize stimuli, think, remember, learn language, and solve problems. Current research in each of these areas will be discussed.
Prerequisites: PSYC 150.
Terms Typically Offered: Fall, Spring, Summer.

PSYC 420 Personality 3 Credits
Examination of personality psychology from the time of Freud through the present. Emphasis on theories and various approaches to understanding the development and functioning of both the general and the unique in personality are emphasized.
Prerequisites: PSYC 216; PSYC 400 is recommended.
Terms Typically Offered: Fall, Spring, Summer.

PSYC 421 Counseling Processes and Techniques 3 Credits
Counseling principles and practices that facilitate interpersonal communication and effective personal and social development. Counseling skills in attending behavior, listening, problem exploration, responding, understanding, and modes of action are examined, discussed and applied in classroom counseling situations.
Prerequisites: PSYC 201.
Terms Typically Offered: Spring.

PSYC 422 Sensation and Perception 3 Credits
Introduction to the scientific study of human sensation and perception. Includes a detailed study of the major senses (vision, audition, touch, smell, taste). Covers the physical basis for perceptual information (e.g., light, odor), and the biological, psychological, and computational processes by which the brain converts such information to perceptions.
Prerequisites: PSYC 150.
Terms Typically Offered: Spring.

PSYC 423 Psychological Interviewing 3 Credits
Examination of psychological interviewing techniques, methods, and interpretation using the DSM-V. Interview types will include counseling, intake, assessment, and diagnosis.
Prerequisites: PSYC 201.
Terms Typically Offered: Spring.

PSYC 424 Group Processes 3 Credits
Dynamics, procedures, and processes of the group. Focus will be on understanding self and learning how to help others develop self-understanding, as well as personal and social skills.
Prerequisites: PSYC 201.
Terms Typically Offered: Spring.

PSYC 425 Forensic Psychology 3 Credits
Introduction to the production and application of psychological knowledge to the civil and criminal justice systems.
Prerequisites: Junior or senior standing.
Terms Typically Offered: Spring.

PSYC 430 Biopsychology 3 Credits
The biological bases of the behaviors of the organism, emphasizing the structure and function of the nervous system. The role of biological factors in such behaviors as sleep, sexual behavior, drug addiction, emotion, etc. will be examined.
Prerequisites: Junior or senior standing and PSYC 216.
Terms Typically Offered: Fall, Spring.

PSYC 435 Applied Social Psychology 3 Credits
Survey of theories and research in social psychology. Advanced topics in social psychology through readings and discussion on historical and current perspectives, such as: self, person perception, attitudes, attributions, close relationships, social influence, and group conflict.
Prerequisites: PSYC 150 and upper division standing.
Terms Typically Offered: Spring.

PSYC 440 Positive Psychology 3 Credits
Scientific study of human strengths and virtues. Includes an understanding of research, theory, and the application of positive psychology principles.
Prerequisites: PSYC 150 and PSYC 201.
Terms Typically Offered: Fall, Spring.

PSYC 495 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

PSYC 496 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

PSYC 499 Internship 1-12 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Psychology - Counseling (PSYP)

Courses

PSYP 305 Suicide Intervention Training 1 Credit
Provides a clear and direct method to intervene with those at risk of suicide. Students learn to identify risk factors, develop safety plans, practice skills to intervene, and develop an understanding of resources available. This is a two day (16 hour) suicide intervention workshop.

PSYP 306 Applied Ethics in Mental Health and Counseling 1 Credit
Application of professional ethical principles and codes to mental health and health service settings.

PSYP 320 Career Development 3 Credits
Theories of, and factors influencing, career development such as assessment, career maturity, decision making, problem solving, and planning. Current developments in adult career and life development will be discussed including life stages, transitions, midlife crisis, stress, and adjustments necessary for career development effectiveness.
Prerequisites: PSYC 201 or permission of instructor.

PSYP 322 Multicultural Service Learning 3 Credits
Exploration of multiculturalism through ethnography and community service field work.
Prerequisites: PSYC 201.

PSYP 396 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

PSYP 410 Introduction to Marriage and Family Counseling 3 Credits
Key theories and approaches for diverse problem areas in Marriage and Family Counseling, including domestic violence and substance abuse. Explore career options and training for counselors.
Prerequisites: PSYC 150 or SOCO 144.

PSYP 420 Counseling Processes and Techniques 3 Credits
Counseling principles and practices which facilitate interpersonal communication and effective personal and social development. Counseling skills in attending behavior, listening, problem exploration, responding, understanding, and modes of action are examined, discussed and applied in classroom counseling situations.
Prerequisites: PSYP 320 and PSYC 340 or permission of instructor.

PSYP 422 Psychological Interviewing 3 Credits
Psychological interviewing techniques, methods, and interpretation will be examined using the DSM-V. Interview types will include counseling, intake, assessment, and diagnosis.
Prerequisites: PSYC 201, PSYC 340 and PSYC 400.

PSYP 424 Group Processes 3 Credits
Dynamics, procedures, and processes of the group. Focus will be on understanding self and learning how to help others develop self-understanding as well as personal and social skill.
Prerequisites: PSYP 420.

PSYP 496 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

PSYP 497 Practicum I 4 Credits
Interpersonal training and counseling practice under professional supervision. A typed paper/journal must be submitted for approval and course credit.
Prerequisites: Senior standing and permission of instructor. Practicum must be arranged for the semester prior to enrollment.

PSYP 499 Practicum II 4 Credits
Counseling experience in external field locations according to needs and career goals of the student. A typed paper/journal must be submitted for approval and course credit.
Prerequisites: Permission of instructor. Internship must be arranged for the semester prior to enrollment.

Public Administration (PADM)

Courses

PADM 314 Public Organization Theory 3 Credits
Examination of the historical development of organizational theory. Focuses on various theoretical approaches to the study of organizational structure and human behavior in public sector organizations.
Terms Typically Offered: Spring.

PADM 315 Public Management 3 Credits
Exploration of the concepts and skills essential to successful management in public organizations. Focuses on the management functions critical for success of the organization and how these functions are affected by operating in the public sector.
Terms Typically Offered: Fall.

PADM 350 Ethics in Public Administration 3 Credits
Philosophical and practical issues related to ethical decision making in the public sector. Emphasis on the analysis of ethical problems and the development of analytical skills and values framework to act ethically in public service roles.
Terms Typically Offered: Spring.

PADM 396 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

PADM 442 Public Budgeting 3 Credits
Examination of the principles and practices of resource allocation and the role of the budget in policy development and implementation focusing primarily on state and local government. Focuses on the relationship of the budget to strategic planning, policy implementation, and performance measures.
Terms Typically Offered: Fall.

PADM 446 Public Personnel Management 3 Credits
Examination of the major issues and components of public personnel systems. Special focus will be placed on the role of the first line government supervisor or middle manager in all facets of personnel administration.
Terms Typically Offered: Fall.

PADM 495 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

Radiologic Sciences (RADS)

Courses

RADS 320 Introduction to Radiologic Technology and Patient Care 3 Credits
Introduction to radiologic technology with emphasis on the education program, the profession, and the healthcare delivery system. Fundamentals of patient care including ethics, professional conduct, communication, radiation protection, and patient management. Study of medical terminology is included.
Prerequisites: Acceptance into the Radiologic Sciences program.
Corequisites: RADS 320L.

RADS 320L Introduction to Radiologic Technology and Patient Care Laboratory 1 Credit
Lab component required for RADS 320.
Corequisites: RADS 320.

RADS 321 Radiographic Anatomy and Positioning I 2 Credits
Exploration of every phase of radiography in an integrated coverage of the appendicular skeletal system, abdomen, thoracic, viscera, and body systems. Radiographic anatomy, positioning, and procedures are discussed and applied in the energized laboratory.
Corequisites: RADS 321L.

RADS 321L Radiographic Anatomy and Positioning I Laboratory 1 Credit
Lab component required for RADS 321.
Prerequisites: Acceptance into the Radiologic Sciences program.
Corequisites: RADS 321.

RADS 322 Principles of Radiographic Exposure 2 Credits
Exploration of fundamental factors that govern and influence the radiographic image, including equipment, accessory devices, and exposure mathematics. Technical and prime exposure factors are discussed and applied in the energized laboratory.
Prerequisites: Acceptance into the Radiologic Sciences program.
Corequisites: RADS 322L.

RADS 322L Principles of Radiographic Exposure Laboratory 1 Credit
Lab component required for RADS 322.
Prerequisites: Acceptance into the Radiologic Sciences program.
Corequisites: RADS 322.

RADS 323 Digital Imaging 2 Credits
Exploration of components, principles, and operation of digital imaging systems found in diagnostic radiology. Factors affecting image acquisition, display, archiving, and retrieval are discussed.
Prerequisites: Acceptance into the Radiologic Sciences program.

RADS 329 Radiographic Clinical Experience I 1 Credit
Introduction to the radiographic clinical education experience in the clinical education site. Designed to provide patient care and assessment, competent performance of radiologic imaging, and total quality management. Levels of competency and outcomes measurement ensure the well-being of the patient prior to, during, and following the radiologic procedure.
Prerequisites: Acceptance into the Radiologic Sciences program.
Fees: Yes.

RADS 331 Radiographic Anatomy and Positioning II 2 Credits
Continuation of RADS 321 with instruction in every phase of radiography of the spinal column, digestive system, urinary system, cranium, and facial bones. Radiographic anatomy, positioning, and procedures are discussed and applied in the energized laboratory.
Prerequisites: Acceptance into the Radiologic Sciences program.
Corequisites: RADS 331L.

RADS 331L Radiographic Anatomy and Positioning II Laboratory 1 Credit
Lab component required for RADS 331.
Prerequisites: Acceptance into the Bachelor of Science in Radiologic Sciences program.
Corequisites: RADS 331.

RADS 332 Specialized Imaging 2 Credits
Introduction to medical imaging modalities and treatment, including equipment, dose differences, types of radiation, patient preparations, indications, and contraindications. Educational and certification requirements are included. Mobile and trauma radiography also are discussed. The course includes an introduction to sectional anatomy of head/brain, chest, mediastinum, abdomen, pelvis, and musculoskeletal system.
Prerequisites: Acceptance into the Radiologic Sciences program.

RADS 333 Imaging Equipment and Quality Assurance 2 Credits
Introduction to radiographic, fluoroscopic, and mobile equipment requirements and design. Applied practice of equipment maintenance, quality control, and testing performed in lab.
Prerequisites: Acceptance into the Radiologic Sciences program.
Corequisites: RADS 333L.

RADS 333L Imaging Equipment and Quality Assurance Laboratory 1 Credit
Lab component required for RADS 333.
Prerequisites: Acceptance into the Radiologic Sciences program.
Corequisites: RADS 333.

RADS 334 Image Analysis I 2 Credits
Principles of analyzing radiographic images of the appendicular skeleton, chest, and abdomen. The importance of optimal imaging standards, as well as discussion of a problem-solving technique for image evaluation and the factors that can affect image quality are also addressed. Actual images will be included for analysis.
Prerequisites: Acceptance into the Radiologic Sciences program.

RADS 335 Radiation Biology and Protection 2 Credits
Principles of radiation interaction in cells and factors affecting cell response to radiation. The course also addresses acute and chronic effects of radiation, dose equivalent limits, and regulatory involvement. Responsibility by the radiographer to patients, personnel, the public, and self are also discussed.
Prerequisites: Acceptance into the Radiologic Sciences program.

RADS 339 Radiographic Clinical Experience II 4 Credits
Exploration of additional concepts correlating skills with academic courses in radiographic clinical education. Designed to provide patient care and assessment, competent performance of radiologic imaging, and total quality management. Levels of competency and outcomes measurement ensure the well-being of the patient prior to, during, and following the radiologic procedure.
Prerequisites: Acceptance into the Radiologic Sciences program.

RADS 354 Image Analysis II 2 Credits
Principles of analyzing radiographic images of the axial skeleton (including the spine, sternum, ribs, and cranium), facial bones, paranasal sinuses, and the digestive system. The importance of optimal imaging standards, as well as discussion of a problem-solving technique for image evaluation and the factors that can affect image quality are also addressed. Actual images will be included for analysis.
Prerequisites: Acceptance into the Radiologic Sciences program.

RADS 449 Radiographic Clinical Experience III 6 Credits
Further exploration of clinical education. Designed to provide patient care and assessment, competent performance of radiologic imaging and total quality management. Levels of competency and outcomes measurement ensure the well-being of the patient prior to, during, and following the radiologic procedure.
Prerequisites: Acceptance into the Radiologic Sciences program.

RADS 451 Imaging Pathology 3 Credits
Introduction to concepts related to the disease process with emphasis on the radiographic appearance of disease.
Prerequisites: Acceptance into the Radiologic Sciences program.

RADS 452 Sectional Anatomy 3 Credits
Exploration of the location and identification of structures in multiple anatomical planes. Function, orientation, imaging, and pathology will be discussed.
Prerequisites: Acceptance into the Radiologic Sciences program.

RADS 453 Advanced Patient Care 3 Credits
Development of patient care knowledge and skills required for advanced medical imaging procedures. Focus is on legal and ethical considerations, drug administration, patient monitoring, emergency care, and sterile technique.
Prerequisites: Acceptance into the Radiologic Sciences program.

RADS 459 Radiographic Clinical Experience IV 5 Credits
Further exploration of clinical education. Designed to provide patient care and assessment, competent performance of radiologic imaging and total quality management. Levels of competency and outcomes measurement ensure the well-being of the patient prior to, during, and following the radiologic procedure.
Prerequisites: Acceptance into the Radiologic Sciences program.

RADS 460 Principles of Magnetic Resonance Imaging 2 Credits
Introduction to the operation of a magnetic resonance imaging (MRI) scanner. Includes magnetic resonance imaging instrumentation, safety, physics, and contract media. Does not include clinical experience.
Prerequisites: Acceptance into the Bachelor of Applied Science program or Radiologic Sciences MRI Certificate Program; registered radiologic technologist with minimum associate degree.

RADS 461 Principles of Computed Tomography 2 Credits
Introduction to the operation of computed tomography equipment. Includes instrumentation, image display, radiation safety, and contrast media. Does not include clinical experience.
Prerequisites: Acceptance into the Radiologic Sciences program, or CT Certificate program.

RADS 462 Leadership and Management 3 Credits
Identification of skills necessary to work within an effective interdisciplinary health care team. Includes principles of leadership, quality management, and health care law.
Prerequisites: Acceptance into the Radiologic Sciences program.

RADS 463 Information Literacy in Radiologic Sciences 3 Credits
Development of life-long learning skills necessary to function competently in the continually changing medical imaging environment. Content includes intellectual inquiry, information literacy, and scholarly research methods.
Prerequisites: Acceptance into the Radiologic Sciences program.

RADS 464 Senior Capstone 3 Credits
Synthesis of radiologic science concepts, principles, and procedures. Includes development of resume and interview skills.
Prerequisites: Acceptance into the Radiologic Sciences program.

RADS 469 Radiographic Clinical Experience V 5 Credits
Further exploration of clinical education. Designed to provide patient care and assessment, competent performance of radiologic imaging and total quality management. Levels of competency and outcomes measurement ensure the well-being of the patient prior to, during, and following the radiologic procedure.
Prerequisites: Acceptance into the Radiologic Sciences program.
Terms Typically Offered: Spring.

RADS 470 Applied Magnetic Resonance Imaging 3 Credits
Continuation of RADS 460. Development of knowledge and cognitive skills underlying the intelligent performance of tasks typically required of technologists who perform magnetic resonance imaging procedures. Includes patient care, image production, procedures, artifacts, and quality control. Does not include clinical experience.
Prerequisites: RADS 460.

RADS 471 Applied Computed Tomography 3 Credits
Continuation of RADS 461. Development of knowledge and cognitive skills underlying the intelligent performance of tasks typically required of technologists who perform computed tomography procedures. Includes patient care and safety, imaging procedures, and image assessment. Does not include clinical experience.
Prerequisites: RADS 461.

RADS 480 Clinical Specialization I 4 Credits
Demonstration of clinical competency in Radiologic Science imaging modality. Practical experience gained and demonstrations of competency in positioning, machine control, patient care and image quality in chosen modality.
Prerequisites: RADS 460 or RADS 461 (may be taken concurrently).

RADS 490 Clinical Specialization II 4 Credits
Continuation of RADS 480. Demonstration of clinical competency in Radiologic Science imaging modality. Practical experience gained and demonstrations of competency in positioning, machine control, patient care and image quality in chosen modality.
Prerequisites: RADS 470 or RADS 471 (may be taken concurrently); and RADS 480.

RADS 495 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

Reading (READ)

Courses

READ 092 College Reading Studio 1 Credit
This course is designed to offer supplemental support for students in reading intensive courses across the disciplines. Daily mini-lessons will be provided based on Ten Steps to Advanced College Reading Skills, and will follow with individual assistance with discipline-specific vocabulary from college texts. This is a corequisite with social science 100 discipline strands for students with Accuplacer scores of 62-79.
Course may be taken 3 times for credit.

READ 096 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Real Estate (REAL)

Courses

REAL 350 Real Estate Fundamentals 3 Credits
Overview of basic components of the real estate industry. Includes industry terminology and basic real estate concepts and principles.
Terms Typically Offered: Fall, Spring.

REAL 410 Real Estate Finance and Development 3 Credits
Exploration of the process of land development, land packaging and land banking. Analyzes and evaluates real estate financing transactions and opportunities.
Prerequisites: REAL 350.
Terms Typically Offered: Fall, Spring.

REAL 415 Real Estate Valuation and Investment 3 Credits
Examination of real estate appraisals using the current industry practices. Calculate and analyze real estate investment opportunities and strategies using current industry investment analysis tools.
Prerequisites: REAL 350.
Terms Typically Offered: Fall, Spring.

Respiratory Therapy (RESP)

Courses

RESP 201 Introduction to Respiratory Care 2 Credits
Introduction to respiratory therapy. Respiratory history, patient assessment, infection prevention, medical record documentation, cultural, legal, and ethical considerations, and Health Insurance Portability and Accountability Act (HIPAA).
Prerequisites: Admission to the Respiratory Therapy program.
Corequisites: RESP 202, RESP 203/RESP 203L, and RESP 204.
Terms Typically Offered: Fall.

RESP 202 Cardiopulmonary Anatomy and Physiology 3 Credits
Disease processes of the respiratory system. Pathophysiology in disorders of the brain, heart, skeletal muscles, and kidneys affecting oxygenation and ventilation.
Prerequisites: Admission to the Respiratory Therapy program.
Corequisites: RESP 201, RESP 203/RESP 203L, and RESP 204.
Terms Typically Offered: Fall.

RESP 203 Respiratory Procedures I 2 Credits
Equipment and technology in respiratory therapy. Critical thinking, decision-making, demonstration of equipment and procedural skills, and ensuring patient safety.
Prerequisites: Admission into the Respiratory Therapy program.
Corequisites: RESP 201, RESP 202, RESP 203L, and RESP 204.
Terms Typically Offered: Fall.

RESP 203L Respiratory Procedures I Laboratory 2 Credits
Equipment and technology in respiratory therapy. Critical thinking, decision-making, demonstration of equipment and procedural skills, and ensuring patient safety.
Prerequisites: Admission to the Respiratory Therapy program.
Corequisites: RESP 201, RESP 202, RESP 203, and RESP 204.
Terms Typically Offered: Fall.
Fees: Yes.

RESP 204 Respiratory Pharmacology 3 Credits
Introduction to medication for respiratory therapy. Explores respiratory, cardiac, neuromuscular, sedative, analgesics, and diuretic medications. Also covers drug actions, interactions, chemical composition, and treatments focusing on the respiratory system.
Prerequisites: Admission to the Respiratory Therapy program.
Corequisites: RESP 201, RESP 202, and RESP 203/RESP 203L.
Terms Typically Offered: Fall.

RESP 205 Cardiopulmonary Pathophysiology 3 Credits
Common disease/disorder processes in respiratory therapy patients. Investigation of case studies determining appropriate respiratory care. Development of communication and interdisciplinary collaboration skills.
Prerequisites: Admission to the Respiratory Therapy program.
Corequisites: RESP 206, RESP 207, RESP 208/RESP 208L, and RESP 209.
Terms Typically Offered: Spring.

RESP 206 Cardiopulmonary Diagnostics 2 Credits
Survey of diagnostic techniques used to determine the quality of the patient's respiratory status. Non-invasive monitoring, imaging studies, pulmonary mechanics, cardiac testing, and hemodynamics.
Prerequisites: Admission to the Respiratory Therapy program.
Corequisites: RESP 205, RESP 207, RESP 208/RESP 208L, and RESP 209.
Terms Typically Offered: Spring.

RESP 207 Noninvasive Care Management 2 Credits
Identification of respiratory failure. Noninvasive modalities and approaches used to manage patients in respiratory distress of failure.
Prerequisites: Admission to the Respiratory Therapy program.
Corequisites: RESP 205, RESP 206, RESP 208/RESP 208L, and RESP 209.
Terms Typically Offered: Spring.

RESP 208 Respiratory Procedures II 1 Credit
Advanced respiratory therapy equipment technology. Development of critical thinking, decision-making, equipment, and procedural skills, as well as ensuring patient safety. Also covers lung expansion, inspiratory training, pulmonary hygiene, and heated high flow processes. Completion of Basic Life Support (BLS) training.
Prerequisites: Admission to the Respiratory Therapy program.
Corequisites: RESP 205, RESP 206, RESP 207, RESP 208L, and RESP 209.
Terms Typically Offered: Spring.

RESP 208L Respiratory Procedures II Laboratory 2 Credits
Advanced respiratory therapy equipment technology. Development of critical thinking, decision-making, equipment, and procedural skills, as well as ensuring patient safety. Also covers lung expansion, inspiratory training, pulmonary hygiene, and heated high flow processes. Completion of Basic Life Support (BLS) training.
Prerequisites: Admission to the Respiratory Therapy program.
Corequisites: RESP 205, RESP 206, RESP 207, RESP 208, and RESP 209.
Terms Typically Offered: Spring.
Fees: Yes.

RESP 209 Respiratory Clinical I 2 Credits
Introductory acute care clinical training. Hospital care experience in patient assessment, oxygen therapy, bland aerosol, medication, and noninvasive respiratory modalities.
Prerequisites: Admission to the Respiratory Therapy program.
Corequisites: RESP 205, RESP 206, RESP 207, and RESP 208/RESP 208L.
Terms Typically Offered: Spring.

RESP 211 Mechanical Ventilation 2 Credits
Mechanical ventilation physics and functions. Ventilator modes, management techniques, waveforms, and bundle strategies. Laboratory critical care scenarios of patient disease/disorder processes and protocols. Completion of Advanced Cardiac Life Support (ACLS).
Prerequisites: Admission to the Respiratory Therapy program.
Corequisites: RESP 211L and RESP 219.
Terms Typically Offered: Summer.

RESP 211L Mechanical Ventilation Laboratory 2 Credits
Mechanical ventilation physics and functions. Ventilator modes, management techniques, waveforms, and bundle strategies. Laboratory critical care scenarios of patient disease/disorder processes and protocols. Completion of Advanced Cardiac Life Support (ACLS).
Prerequisites: Admission to the Respiratory Therapy program.
Corequisites: RESP 211 and RESP 219.
Terms Typically Offered: Summer.
Fees: Yes.

RESP 213 Fundamentals of Pediatric and Neonatal Care 2 Credits
Exploration of care for antenatal, neonatal, and pediatric patients. Assessment of fetal development, neonatal, and pediatric diseases. Addresses causes of prematurity and high-risk delivery. Completion of Neonatal Resuscitation Provider (NRP) and Pediatric Advanced Life Support (PALS).
Prerequisites: Admission to the Respiratory Therapy program.
Corequisites: RESP 214 and RESP 229.
Terms Typically Offered: Fall.
Fees: Yes.

RESP 214 Professional Development for Respiratory Care Practitioners 2 Credits
Health care professional development. Preparation for the state and national board exams, and state licensure. Focus on professionalism, interview techniques, hiring, and ethical standards.
Prerequisites: Admission to the Respiratory Therapy program.
Corequisites: RESP 213 and RESP 229.
Terms Typically Offered: Fall.

RESP 219 Respiratory Clinical II 5 Credits
Advanced acute care clinical training. Hospital critical care experience in patient assessment, mechanical ventilation, medication delivery, lung expansion, and advanced diagnostic testing.
Prerequisites: Admission to the Respiratory Therapy program.
Corequisites: RESP 211/RESP 211L.
Terms Typically Offered: Summer.

RESP 229 Respiratory Clinical III 8 Credits
Critical and specialty care training. Intensive care, emergency room, and specialty care evaluation of respiratory therapy.
Prerequisites: Admission to the Respiratory Therapy program.
Corequisites: RESP 213 and RESP 214.
Terms Typically Offered: Fall.

Social Science (SOCI)

Courses

SOCI 101 Introduction to Lesbian, Gay, Bisexual, and Transgender Studies-GTSS3 3 Credits
Introduction to lesbian, gay, bisexual, and transgender studies. Exploration of LGBT studies as an academic field and consideration of the experience of being lesbian, gay, bisexual, or transgender.
Essential Learning Categories: Social and Behavioral Sciences
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

SOCI 102 Introduction to Women's and Gender Studies-GTSS3 3 Credits
Introduction to major themes, methods, and works in women and gender studies. Overview of the contributions that women's history, queer studies, and feminist theory have made to a variety of academic disciplines.
Essential Learning Categories: Social and Behavioral Sciences
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

SOCI 120 Technology and Society-GTSS3 3 Credits
Overview of technological innovations and human societies throughout modern history. Emphasizes impacts of technology within a social, political, economic, and environmental context.
Essential Learning Categories: Social and Behavioral Sciences
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

SOCI 196 Topics 1-6 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

SOCI 270 Introduction to Pre-Law Studies 2 Credits
Exploration of the path to law school. Dispels myths about the practice of law and law school acceptance. Understanding of skills needed to succeed in law school. Career outlook and resources available to applicants. Open to all majors.
Terms Typically Offered: Fall.

SOCI 296 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

SOCI 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

SOCI 396 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

SOCI 397 Structured Research 1-3 Credits
Course may be taken multiple times up to maximum of 9 credit hours.

SOCI 401 LSAT Preparation 3 Credits
Preparation for the Law School Admissions Test (LSAT).

SOCI 410 Death, Dying & Bereavement 3 Credits
Provides an in-depth overview of the issues surrounding death, dying and bereavement. The social and psychological processes of death using interdisciplinary readings from psychology, sociology, anthropology, history, medicine and philosophy.

SOCI 470 Pre-Law in Practice 3 Credits
Prepare for law school. Information about types of law, career outlook, making connections, and selecting the right school. Building skills needed for law school. Understanding what is expected, how to apply. Hear from attorneys in the community. Open to all majors.
Prerequisites: Junior or senior standing.

SOCI 495 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

SOCI 496 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

SOCI 497 Structured Research 1-3 Credits
Social or behavioral science research under the directed guidance of a faculty member. Designed for junior and senior level students.
Course may be taken multiple times up to maximum of 9 credit hours.

SOCI 499 Internship 1-6 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Social Work (SOWK)

Courses

SOWK 150 Introduction to Social Work 3 Credits
Exploration of professional social work, including its history, purpose, goals, values, ethics, and mission to enhance human well-being and alleviate poverty and oppression. Includes areas of practice, child welfare, mental health, developmental disabilities, health care, criminal justice, the workplace, diversity, aging, housing, and homelessness through a generalist framework. Special focus on diversity, social justice, and impacts/mechanisms of oppression and discrimination.
Terms Typically Offered: Fall, Spring.

SOWK 210 Justice, Equity, Diversity, and Inclusion (JEDI) in Social Work 3 Credits
Examination of power, privilege, and oppression through an intersectional lens. Incorporation of a social justice lens unique to social work. Special focus on advocacy and activism in social work as key components of anti-racist and anti-oppressive practice. Utilization of critical theories to understand the root causes of local, national, and global inequality and inequity.
Terms Typically Offered: Fall, Spring.

SOWK 296 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

SOWK 301 Child Welfare 3 Credits
Signs and symptoms of abuse and neglect of children. Family dynamics in abuse and neglect, and programs of prevention and intervention. Explores foster care, adoptions, delinquency problems, poverty and homelessness, and related issues in child welfare. Examines the crime of human trafficking.
Prerequisites: SOWK 150.

SOWK 308 Medical Social Work 3 Credits
Explores interface of social work and patients' rights, medical decision-making, case management, process of diagnosis and treatment, palliative and end-of-life care, and the concept of health care consumer. Focus on the current health care system in the United State, the interface of health care and populations-at-risk, and role of the social worker in medical settings.
Prerequisites: SOWK 150.

SOWK 311 Ethical Issues in Social Work 3 Credits
Analysis of specific ethical dilemmas from personal, professional, and policy perspectives. Focus on ethical issues common to the social work profession. Practice of ethical decision-making and connections to ethical theories. Utilization of National Association of Social Work (NASW) Code of Ethics as guide to decision making.
Prerequisites: Admission to the BSW program.
Terms Typically Offered: Fall.

SOWK 320 Social Work Practices in Mental Health 3 Credits
Study of mental health diagnoses, the diagnostic process, impacts of mental health on social problems, and issues related to mental health diagnoses in wider-scope systems and culture. Exploration of research on mental health diagnoses and discussions on treatment and impacts of mental health issues on culture and systemic capacity.
Prerequisites: Admission to the BSW program.
Terms Typically Offered: Spring.

SOWK 325 Nature-Based Interventions for Individual and Community Health 3 Credits
Principles that promote physical and emotional wellbeing, social connectedness, and resilience through access to nature and the outdoors. Assessment of equitable access to community outdoor recreation resources. Synthesis of data on the health benefits of nature. Investigation of cross-sector partnerships, with a focus on identifying funding for community health goals.
Prerequisites: OREC 205 or SOWK 150.
Equivalent Course(s): OREC 350
Terms Typically Offered: Fall.

SOWK 340 Case Management 3 Credits
Exploration of the role of case management in the context of mental health and human services delivery systems. Attention paid to the ways in which social workers identify and use social work values, ethics, and practice models within the context of the diverse and competing needs present in case management service systems.
Prerequisites: SOWK 150.
Terms Typically Offered: Fall, Spring.

SOWK 344 School Social Work 3 Credits
Overview of social work practice in an educational setting. Cooperative work with school personnel in the identification, prevention and treatment of social, emotional and behavioral problems of children and intervention techniques with parents.
Prerequisites: SOWK 150.

SOWK 350 Legal Aspects of Social Work 3 Credits
Exploration of the roles of the social worker in the legal field. Legal terms, procedures, state and federal court systems studied. The legal aspects of protective services for children and adults, the child support laws and the juvenile justice system examined.
Prerequisites: SOWK 150.

SOWK 355 Social Work with Immigrants and Refugees 3 Credits
History of immigration to the United States, with special focus on immigrants and refugees from minoritized groups. Application of the social work helping process to immigrant and refugee populations. Examination of social work theories and micro, meso, and macro interventions, with emphasis on immigrant and refugee voices.
Prerequisites: SOWK 150.
Terms Typically Offered: Spring.

SOWK 365 Social Work Intervention Methods I 3 Credits
Application of social work theory to practice with individuals and families. Focus on engaging clients in the helping process, interviewing skills, assessment tools, social histories, goal writing, termination, and evaluation. Application of systems and ecological frameworks to practice situations. Examination of strengths-based assessments, phases of helping relationships, and dynamics of change in interpersonal helping relationships through anti-racist and anti-oppressive practice.
Prerequisites: Admission to the BSW program.
Terms Typically Offered: Fall.

SOWK 375 Social Work Intervention Methods II 3 Credits
Examination of generalist social work roles and techniques in social work practice with groups. Application of social work helping process to groups. Study of theories about groups and group processes, building skills necessary for effective practice, and exploring leadership, group cohesion, and group dynamics. Special focus on group practice from a social justice lens.
Prerequisites: Admission to the BSW program.
Terms Typically Offered: Spring.

SOWK 377 Spirituality and Social Work 3 Credits
Overview of the knowledge, values, and skills to provide spiritually sensitive social work practice. Prepare generalist social work practitioners to work with clients and their families from a holistic framework (bio, psycho, social, cultural, spiritual) and with diversity and respect. Use of interview techniques, spirituality assessments, and strengths-based approaches.
Prerequisites: SOWK 150.

SOWK 381 Gerontology and Social Work 3 Credits
Overview of health aspects of aging in the United States. Explores theories of aging, social and health issues, family and caregiving dynamics, and end of life concerns. Prepares generalist social work practitioners to work with older clients and their families and with service delivery systems addressing the needs of this population.
Prerequisites: SOWK 150.

SOWK 385 Social Work Intervention Methods III 3 Credits
Utilization of social work theories and models of change on organizations and communities. Introductory overview of strategies, tactics, and techniques of social change. Focus on strengths and empowerment perspectives with organizations and community systems. Exploration of power, power dynamics, building constituencies, mobilizing resources, networking, political participation, leadership development, and grassroots development.
Prerequisites: Admission to the BSW program.
Terms Typically Offered: Fall.

SOWK 387 Social Work Research 3 Credits
Evaluation of qualitative and quantitative research methods. Development of critical engagement with research findings to strengthen social work practice. Research design and implementation of projects, programs, and policies that address the needs of populations. Proficiency using reference management software. Production of secondary research relevant to social work using an anti-racist and anti-oppressive framework.
Prerequisites: Admission to the BSW program.
Terms Typically Offered: Spring.

SOWK 394 Social Work Practicum Seminar I 1 Credit
Introductory study of core competencies and practice behaviors set by Council of Social Work Education (CSWE), discussion of practicum-related issues, and professional development. Implementation of critically reflexive social work in practice. Utilization of social work theories and application to practicum.
Prerequisites: Admission to the BSW program.
Corequisites: SOWK 397.
Terms Typically Offered: Fall.

SOWK 396 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

SOWK 397 Social Work Practicum I 5 Credits
Completion of initial required hours to achieve core competencies in generalist practice setting, in accordance with signature pedagogy of social work education. Introductory application of theories, techniques, and concepts through observation and participation in supervised activities. Achievement of learning objectives in practicum experiences.
Prerequisites: Admission to the BSW Program.
Corequisites: SOWK 394.
Terms Typically Offered: Fall.

SOWK 460 Social Policy 3 Credits
Exploration of the nature and development of social welfare policies. Analysis of history of social services, policy in service delivery, and global, federal, state, and local policies on housing, health care, human rights, and the economy. Intersection of social work practice with social policy, legislation, and the processes of influencing public policy.
Prerequisites: Admission to the BSW program.
Terms Typically Offered: Spring.

SOWK 461 Rural Social Work 3 Credits
Examination of rural and small community life, its value systems, customs, politics, and economic structures. Implications for the lives of people in rural settings and for generalist social work practice and human service delivery.
Prerequisites: SOWK 150.
Terms Typically Offered: Fall, Spring.

SOWK 491 Directed Readings 1-5 Credits
Student and/or faculty initiated special projects/independent study that explores some aspect of social work theory or practice such as: intervention methods, policy, research, populations-at-risk, values and ethics, aging, spirituality, child welfare, addictions, mental health, social and economic justice, and diversity
Prerequisites: SOWK 150, SOWK 210, SOWK 320, SOWK 365, SOWK 375, SOWK 387, senior standing, instructor permission, and a plan for study.

SOWK 494 Social Work Practicum Seminar II 1 Credit
Advanced study of core competencies and generalist practice behaviors set by Council of Social Work Education (CSWE), discussion of practicum-related issues, and professional development. Implementation of critically reflexive social work in practice. Utilization of social work theories and application to practicum.
Prerequisites: Admission to the BSW program.
Corequisites: SOWK 497.
Terms Typically Offered: Spring.

SOWK 495 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

SOWK 497 Social Work Practicum II 5 Credits
Completion of additional required hours to achieve core competencies in generalist practice setting, in accordance with signature pedagogy of social work education. Advanced application of theories, techniques, and concepts through observation and participation in supervised activities. Achievement of learning objectives in practicum experiences.
Prerequisites: Admission to BSW Program.
Corequisites: SOWK 494.
Terms Typically Offered: Spring.

SOWK 510 History and Philosophy of Social Work 3 Credits
Introduction to the social work profession and its historical development. Explores practice setting and vulnerable populations served by social workers. Provides an overview of the knowledge, values, skills, and practice behaviors required for social workers.
Terms Typically Offered: Fall.

SOWK 511 Human Behavior and Social Environment 3 Credits
Social work perspective on human development across the life cycle. Focuses on the biological, psychological, social, cultural and spiritual aspects of human functioning across a lifetime.
Terms Typically Offered: Fall.

SOWK 512 Social Justice in Social Work Practice 3 Credits
Focus on power and privilege dynamics to increase students' awareness, knowledge, and critical skills related to diversity, human rights, social and economic justice, and anti-racist practices.
Terms Typically Offered: Spring.

SOWK 513 Social Work Theory and Practice with Individuals and Families 3 Credits
Knowledge, values, and skill development across micro (individual) and mezzo (group) areas of practice. Focuses on developing clinical skills to engage clients and families in the planned change process including engagement, assessment, intervention, termination and evaluation of services.
Terms Typically Offered: Fall.

SOWK 514 Social Work Theory and Practice with Groups, Organizations, and Communities 3 Credits
Knowledge, values, and skill development in group work, organizations, and in communities. Focuses on developing skills to identify and engage constituencies, mobilize resources, network, engage in political participation, and develop grassroots organization.
Terms Typically Offered: Spring.

SOWK 515 Social Work Policy and Practice 3 Credits
Examination of social welfare policy from historical, political, economic, social, and cultural perspectives. Skill development for political advocacy and the process of policy formulation/development, implementation, and evaluation/analysis at the local, state, and federal levels of government.
Terms Typically Offered: Spring.

SOWK 516 Psychopathology for Social Work Practice 3 Credits
Introduction to psychological dysfunction associated with distress or impaired functioning that is not typical, or expected, based on cultural and societal norms. Content is organized in accordance with the Diagnostic and Statistical Manual of Mental Disorders (DSM-5).
Terms Typically Offered: Spring.

SOWK 521 Advanced Ethical, Legal, and Professional Issues in Social Work Practice 3 Credits
Discussion of values, professional ethics, guidelines for making ethical decisions, ethical dilemmas in professional practice, professional relationships, and laws that impact social work.
Terms Typically Offered: Spring.

SOWK 522 Clinical Supervision and Leadership in Social Work Practice 3 Credits
Exploration of various leadership traits, theories, conflict management, laws, and the role of diversity in supervision and leadership. Examines various contexts of practice and the influence of politics, economics, technology, and sociocultural factors on leadership and supervision.
Terms Typically Offered: Spring.

SOWK 523 Advanced Social Work Practice with Individuals and Families 3 Credits
Theory and practice of clinical social work, emphasizing social justice frameworks and life course perspectives. Emphasizes specialized, strengths-based approaches to all phases of social work practice.
Terms Typically Offered: Fall.

SOWK 524 Advanced Social Work Practice with Groups, Organizations, and Communities 3 Credits
Advanced theories, approaches, and skills in social work practice to address complex social issues with disenfranchised groups. This course will engage in effective change in the macro-level social systems environment (e.g., groups, organizations, institutions, communities, and society at large).
Terms Typically Offered: Fall.

SOWK 525 Social Work Research and Program Evaluation 3 Credits
Evaluation of social work research across micro and macro-level perspectives. Students will identify issues related to the design, monitoring, and assessment of social work programs and interventions, using both quantitative and qualitative methods.
Terms Typically Offered: Spring.

SOWK 526 Advanced Psychopathology for Social Work Practice 3 Credits
Advanced, comprehensive overview of psychopathology from a historical and current scientific perspective. Focus on conceptualization of issues, systems of classification and diagnosis, research design methods, clinical symptomatology, differential diagnosis, testing, and etiology of psychopathology across a lifetime.
Terms Typically Offered: Fall.

SOWK 551 Trauma Informed Practice 3 Credits
Exploration of the nature and meaning of trauma, assessing and identifying trauma, and effective practices for treating trauma. Focus on clinical assessments for trauma, understanding diagnosis and trauma, and relational processes as they apply to assessment, case conceptualization, treatment, and theological understandings of trauma therapy and interventions.
Terms Typically Offered: Summer.

SOWK 552 Restorative Justice and Social Work 3 Credits
Examination of conceptual framework, strategies, and benefits of restorative approaches to social worker roles and responsibilities. Develop historical and theoretical understanding of restorative approaches, build restorative-based skills, and apply restorative approaches to a variety of client population systems, settings, and needs.
Terms Typically Offered: Summer.

SOWK 553 Substance Abuse: Assessment, Interventions, and Treatment 3 Credits
Development of knowledge, assessment, and intervention skills utilized to work with individuals experiencing problems with the use of psychoactive substances.
Terms Typically Offered: Summer.

SOWK 554 Crisis Intervention and Social Work 3 Credits
Advanced clinical practice to increase knowledge and skills for working in crisis situations. Apply crisis interventions and theories to various issues such as suicide, sexual assault, domestic violence, substance abuse, grief and loss, mental health, and violent behaviors. A bio-psycho-social and cultural emphasis will be applied to the various problem covered.
Terms Typically Offered: Summer.

SOWK 555 Global Relations and International Social Work 3 Credits
Exploration and critique of how political, economic, cultural, religious, and environmental factors impact social welfare policies, social work practice, and social development globally.
Terms Typically Offered: Summer.

SOWK 594A Field Education: Foundation Seminar I 1 Credit
Integration of foundational social work knowledge, values, and skills into competent practice.
Corequisites: SOWK 597A.
Terms Typically Offered: Fall.

SOWK 594B Field Education: Foundation Seminar II 1 Credit
Integration of foundational social work knowledge, values, and skills into competent practice. Continuation of SOWK 594A.
Corequisites: SOWK 597B.
Terms Typically Offered: Spring.

SOWK 594C Field Education: Advanced Seminar I 1 Credit
Integration of advanced social work knowledge, values, and skills into competent practice.
Corequisites: SOWK 599A.
Terms Typically Offered: Fall.

SOWK 594D Field Education: Advanced Seminar II 1 Credit
Integration of advanced social work knowledge, values, and skills into competent practice. Continuation of SOWK 594C.
Corequisites: SOWK 599B.
Terms Typically Offered: Spring.

SOWK 596 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

SOWK 597A Field Education: Social Work Practicum I 5 Credits
Integrative experience of theory and practice at the foundational level. Provides students with opportunities to apply theories, techniques, and concepts through observation and supervised participation in practice. Field education is the signature pedagogy of social work.
Corequisites: SOWK 594A.
Terms Typically Offered: Fall.

SOWK 597B Field Education: Social Work Practicum II 5 Credits
Integrative experience of theory and practice at the foundational level. Provides students with opportunities to apply theories, techniques, and concepts through observation and supervised participation in practice. Field education is the signature pedagogy of social work. Continuation of SOWK 597A.
Corequisites: SOWK 594B.
Terms Typically Offered: Spring.

SOWK 599A Field Education: Social Work Internship I 6 Credits
Integrative experience of theory and practice at the advanced level. Provides students with opportunities to apply theories, techniques, and concepts through observation, co-facilitation, and independent practice. Field education is the signature pedagogy of social work.
Corequisites: SOWK 594C.
Terms Typically Offered: Fall.

SOWK 599B Field Education: Social Work Internship II 6 Credits
Integrative experience of theory and practice at the advanced level. Provides students with opportunities to apply theories, techniques, and concepts through observation, co-facilitation, and independent practice. Field education is the signature pedagogy of social work. Continuation of SOWK 599A.
Corequisites: SOWK 594D.
Terms Typically Offered: Spring.

Sociology (SOCO)

Courses

SOCO 144 Marriage and Families-GTSS3 3 Credits
Survey of patterns of marriage and family life in social context, with an emphasis on sociological explanations of family patterns and relevant policy implications.
Essential Learning Categories: Social and Behavioral Sciences
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

SOCO 202 Introduction to Sociological Inquiry 3 Credits
Orientation to sociology, with a focus on introductory methods of sociological research. Preparation for writing and research requirements of upper-division sociology courses. Exploration of possible careers and marketing of skills after graduation.
Prerequisites: SOCO 260 or SOCO 264.
Terms Typically Offered: Fall.

SOCO 260 General Sociology-GTSS3 3 Credits
An overview of sociological concepts, terminology, basic principles, and important theories; introduction to substantive areas of the field.
Essential Learning Categories: Social and Behavioral Sciences
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

SOCO 264 Social Problems-GTSS3 3 Credits
Analysis of contemporary social problems from a sociological perspective, including the social construction of problems, theoretical explanations, and policy implications. Specific problems covered will vary but may include topics such as inequality along with problems in social institutions such as the economy, education, and the family.
Essential Learning Categories: Social and Behavioral Sciences
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

SOCO 296 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

SOCO 300 Political Sociology 3 Credits
The interactions and interrelationships between social and political forces. Topics covered include: state and society, the social bases of power, ideology, and the media.
Prerequisites: SOCO 260 or POLS 101.
Terms Typically Offered: Fall.

SOCO 303 Sociological Research Methods 3 Credits
Methods of sociological research, including practical application of quantitative methods to social science data, culminating in an individual research project.
Prerequisites: SOCO 202 and STAT 215.
Terms Typically Offered: Spring.

SOCO 305 Environmental Sociology 3 Credits
Overview of the interrelations among the physical environment, population, and technology; the origin and basis of environmental social movement organizations; the social construction of environmental issues.
Prerequisites: SOCO 260 or SOCO 264.
Terms Typically Offered: Spring.

SOCO 310 Sociology of Religion 3 Credits
Examination of religious beliefs, practices, and organizations from a sociological perspective. Consideration also given to the intersection of religion with race, class, gender, and sexuality.
Prerequisites: SOCO 260 or SOCO 264.
Terms Typically Offered: Spring.

SOCO 312 Social Movements and Political Activism 3 Credits
Sociological study of historical and contemporary social movements and political activism. Overview of the literature on social movement development, organization, participation, and outcomes.
Prerequisites: SOCO 260 or SOCO 264.
Terms Typically Offered: Spring.

SOCO 314 Population 3 Credits
Basic concepts of population studies in international context. Demographic trends including fertility, mortality and migration, as well as the causes and consequences of those trends.
Prerequisites: SOCO 260 or SOCO 264.
Terms Typically Offered: Fall.

SOCO 316 Social Inequality 3 Credits
Causes and effects of inequality, especially social class, with consideration of race and gender.
Prerequisites: SOCO 260 or SOCO 264.
Terms Typically Offered: Fall.

SOCO 318 Sociology of Health & Illness 3 Credits
Exploration of sociological perspectives relating to the definitions and experiences of health and illness. Overview of the literature on social inequalities in health and illness, cultural constructions of illness, social experiences of illness, and local and global health care systems.
Prerequisites: SOCO 260 or SOCO 264.
Terms Typically Offered: Fall.

SOCO 320 Life Course and Aging 3 Credits
Investigation of development and aging as lifelong processes situated in social context. Exploration and application of a social scientific framework for understanding the interplay between human lives and social change.
Prerequisites: SOCO 260 or SOCO 264.
Terms Typically Offered: Fall.

SOCO 323 Self and Society 3 Credits
Investigation of microsociology, which examines the nature of everyday social interactions, relationships, and groups. Consideration also given to interdisciplinary perspectives that shed light on human social behavior.
Prerequisites: SOCO 260 or SOCO 264.
Terms Typically Offered: Spring.

SOCO 325 Race and Ethnic Relations 3 Credits
Sociological analysis of race and ethnic relations in the United States, both historically and today.
Prerequisites: SOCO 260 or SOCO 264.
Terms Typically Offered: Fall.

SOCO 340 Sociology of Gender 3 Credits
Investigation of sociological perspectives on gender, with an emphasis on the social construction of gender, gender inequality in social institutions, and patterns of gendered social relations.
Prerequisites: SOCO 260 or SOCO 264.
Terms Typically Offered: Spring.

SOCO 345 Sociology of Sexuality 3 Credits
Exploration of sexuality from a sociological perspective. Analysis of the intersections of race, class, and gender as well as social institutions as they apply to understanding sexuality.
Prerequisites: SOCO 260 or SOCO 264.
Terms Typically Offered: Fall.

SOCO 351 21st Century Families 3 Credits
Sociological investigation of changing family structures and intimate relationships, with an emphasis on contemporary constructions of family, diverse family forms, the role of gender in family life, and problems faced by contemporary families.
Prerequisites: SOCO 260.
Terms Typically Offered: Fall.

SOCO 370 Roots of Sociological Thought 3 Credits
Introduction to the origins of sociology and the early development of sociological thought. Emphasis on the relevance of classical perspectives to an understanding and critical evaluation of society today.
Prerequisites: SOCO 202 and SOCO 260.
Terms Typically Offered: Fall.

SOCO 375 Contemporary Sociological Perspectives 3 Credits
Overview of sociological theory from the early 20th century to the present. Emphasis on applying contemporary theories to understanding and critiquing issues in society today.
Prerequisites: SOCO 202 and SOCO 260.
Terms Typically Offered: Spring.

SOCO 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

SOCO 396 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

SOCO 399 Internship 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

SOCO 420 Field Studies 6 Credits

SOCO 493 Senior Capstone 3 Credits
Sociological analysis of contemporary issues in society. Specific topics vary according to current events and instructor expertise.
Prerequisites: SOCO 202 and Senior Standing.
Terms Typically Offered: Spring.

SOCO 495 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

SOCO 496 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

SOCO 499 Internship 1-3 Credits
Work experience relevant to sociology in a wide variety of potential settings outside the university community.
Terms Typically Offered: Fall, Spring.
Course may be taken multiple times up to maximum of 15 credit hours.

Speech (SPCH)

Courses

SPCH 101 Interpersonal Communication 3 Credits
Exploration of multiple aspects of human communication behavior, including: the self, perception, verbal and nonverbal communication, diversity and adapting to others, conflict, culture, and relationships in personal/professional contexts.
Essential Learning Categories: Social and Behavioral Sciences
Terms Typically Offered: Fall, Spring, Summer.

SPCH 102 Speechmaking 3 Credits
Preparation, organization, and delivery of a variety of speeches.
Essential Learning Categories: Humanities
Terms Typically Offered: Fall, Spring, Summer.

SPCH 112 Acting III: Voice and Diction 3 Credits
The use of the speaking voice emphasizing voice placement, speech sounds, breath control, projection, and the phonetic alphabet. Recommended for theatre majors, teachers, prelaw, ministers and business majors.

SPCH 196 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

SPCH 203 Persuasion 3 Credits
Open discussions on the ethics, process, and application of the everyday use of persuasion in range of contexts, including: advertisements, culture, politics, and more.
Terms Typically Offered: Fall.

SPCH 241 Oral Interpretation 3 Credits
The reading aloud of prose, poetry, and essays with the intention of conveying the author's ideas to a listening audience.

SPCH 296 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

SPCH 303 Nonverbal Communication 3 Credits
The opportunity to observe, record and interpret the nonverbal dimensions of communication behavior and the opportunity to enhance awareness and skill in nonverbal communication behavior in mass media, law, theatre, group dynamics, etc.

SPCH 304 Communication and Conflict 3 Credits
The nature of conflict, conflict structure, conflict styles, and the use of power in conflicts. Application of theories to analyze and set goals to plan strategies and tactics. Study of intervention principles and practices.
Terms Typically Offered: Fall.

SPCH 305 Intercultural Communication 3 Credits
Research and practical application to facilitate constructive communication and relationships with individuals and groups from diverse cultures, backgrounds, and identities.
Terms Typically Offered: Fall.

SPCH 306 Communication and Leadership 3 Credits
Study of communication theories and styles to determine the influence over behaviors, thoughts, and feelings in leader-follower interactions.
Terms Typically Offered: Fall.

SPCH 307 Professional Presentations 3 Credits
Exploration and practical development of high-energy presentation skills tailored to students' chosen career paths.
Prerequisites: SPCH 102 or ESSL 200.
Terms Typically Offered: Fall, Spring.

SPCH 308 Argumentation 3 Credits
Development and rhetorical application of various types of arguments over personal, national, and international topics of current interest for the sake of better citizenship in a democracy.
Prerequisites: ESSL 200 or SPCH 102.
Terms Typically Offered: Spring.

SPCH 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

SPCH 396 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

SPCH 495 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

SPCH 496 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Statistics (STAT)

Courses

STAT 200 Probability and Statistics-GTMA1 3 Credits
Introduction to descriptive and inferential statistical methods. Topics include: types of random variables, graphical and numeric summaries of data, elementary probability, discrete and continuous probability distributions, sampling distributions, confidence intervals and hypothesis testing for one and two samples, correlation and regression, chi-squared tests, and one-way analysis of variance.
Prerequisites: MATH 110 or MATH 113.
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

STAT 215 Statistics for Social and Behavioral Sciences 4 Credits
Introduction to descriptive and inferential statistical methods, with specific applications for social and behavioral sciences. Topics include types of random variables; graphical and numeric data summaries; elementary probability; discrete and continuous probability distributions; sampling distributions; confidence intervals and hypothesis testing; correlation and regression; chi-squared tests; and one-way analysis of variance. Includes proficiency in software commonly used in the social sciences.
Prerequisites: MATH 110 or higher; and one of the following: ANTH 202, PSYC 150, SOCO 260, CRMJ 201, or POLS 101.
Terms Typically Offered: Fall, Spring.

STAT 241 Introduction to Business Analysis 3 Credits
Introduction to descriptive, predictive, and inferential analysis techniques with business applications. Topics include summarizing data graphically and numerically; elementary probability; discrete and continuous probability distributions; sampling distributions; intervals and tests for one and two samples; correlation and regression; chi-squared tests; and one-way analysis of variance. Appropriate business and statistical software will be used.
Prerequisites: MATH 113 or higher.
Equivalent Course(s): CISB 241
Terms Typically Offered: Fall, Spring.

STAT 301 Computational Statistics 3 Credits
Introduction to computational methods within statistical software, with a primary focus on data analysis and exploration using R. Topics include introductory coding in R; descriptive statistics; probability distributions; tests and intervals for one and two samples; linear regression and correlation; analysis of variance; chi-squared tests; simulation; bootstrapping; Bayesian methods; and data visualization.
Prerequisites: STAT 200 or STAT 215 or STAT 241 or CISB 241.
Terms Typically Offered: Fall.

STAT 305 Statistics and Quality Control for Engineering 3 Credits
Introduction to descriptive and inferential statistics, and principles of quality management. Topics include descriptive statistics, probability distributions, hypothesis testing, regression analysis, control charts, total quality management, quality improvement process, process capability, and gauge repeatability and reproducibility.
Prerequisites: MATH 135 or MATH 151; and CSCI 130.
Terms Typically Offered: Fall.

STAT 312 Correlation and Regression 3 Credits
Graphical, numerical, and theoretical least-squares analysis for simple and multiple regression and correlation, including inference methods, diagnostics and remedial measures, simultaneous inference methods, the matrix approach to regression and correlation analysis, and stepwise regression procedures. Includes use of statistical software.
Prerequisites: STAT 301.
Terms Typically Offered: Spring.

STAT 313 Sampling Techniques 3 Credits
Methodology of simple random sampling, stratified, systematic cluster, and two-stage sampling. Estimation of sample size determination, and minimized costs of sampling are discussed. Use of resampling statistical software.
Prerequisites: STAT 200 or STAT 215 or STAT 241 or CISB 241.
Terms Typically Offered: Spring.

STAT 350 Mathematical Statistics I 3 Credits
Calculus-based mathematical development of discrete and continuous random variables. Topics include probability axioms and rules, Bayes' Theorem, discrete and continuous distributions, expectation, variance, moment generating functions, marginal and conditional distributions, bivariate distributions, transformations, sampling distributions, and the central limit theorem.
Prerequisites: STAT 200 and MATH 253 (may be taken concurrently).
Terms Typically Offered: Fall.

STAT 351 Mathematical Statistics II 3 Credits
Calculus-based continuation of STAT 350: Mathematical Statistics I. Topics include theoretical study of point estimators by method of moments and maximum likelihood, confidence intervals, hypothesis testing, simple linear regression, analysis of variance, and nonparametric methods. Additional topics may include experimental design, quality control, multiple linear regression, and survival analysis.
Prerequisites: STAT 350.
Terms Typically Offered: Spring.

STAT 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

STAT 396 Topics 1-5 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

STAT 425 Design and Analysis of Experiments 3 Credits
Design and analysis of single and multiple factor experiments, fixed, mixed and random effects designs including multiple comparison procedures, transformations, fixed, mixed and random effects designs, completely randomized designs, randomized block designs, Latin square designs, and nested designs.
Prerequisites: STAT 301; and MATH 151 or MATH 135 or MATH 131 or MATH 121.
Terms Typically Offered: Fall.

STAT 430 Categorical Data Analysis 3 Credits
Study of appropriate methods for the collection and analysis of qualitative data. Topics include inference for contingency tables, chi-square and nonparametric tests, logistic regression, modelling for multinomial responses, and generalized linear models.
Prerequisites: STAT 301.
Terms Typically Offered: Fall, Spring.

STAT 460 Actuarial Exams Preparation 3 Credits
Preparation for the Probability Exam (P Exam) as well as the Financial Mathematics Exam (FM Exam) from the Society of Actuaries.
Prerequisites: STAT 351.
Terms Typically Offered: Spring.

STAT 494 Seminar 1 Credit
Discussions of specialized topics by students, faculty, or visiting professors. One-hour meeting per week.
Course may be taken multiple times up to maximum of 10 credit hours.

STAT 495 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

STAT 496 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Surgical Technology (SUTE)

Courses

SUTE 200 Medical Terminology in Surgical Technology 3 Credits
Exploration of word roots, prefixes, suffixes, and abbreviations used in medicine and healthcare. Students will learn medical terminology and definitions related to major body systems and procedures associated with the surgical setting.
Prerequisites: Admission to the Surgical Technology Program.
Corequisites: SUTE 202/SUTE 202L, SUTE 206, and SUTE 210.
Terms Typically Offered: Fall.

SUTE 202 Fundamentals in Surgical Technology 4 Credits
Introduction to the scope and breadth of surgical technology. Students learn evidence-based practices to promote patient safety and to adhere to standards of practice in the surgical setting.
Prerequisites: Admission to the Surgical Technology Program, BIOL 209/BIOL 209L, BIOL 210/BIOL 210L, BIOL 241, and PSYC 150.
Corequisites: SUTE 200, SUTE 202L, SUTE 206, SUTE 210.
Terms Typically Offered: Fall.

SUTE 202L Fundamentals in Surgical Technology Laboratory 3 Credits
Approaches to surgical technology. Students will learn tasks and responsibilities of the surgical technologist including the practice of sterile technique, surgical scrub, gown and glove, patient positioning, draping, and surgical prep on patients. Students will learn the practice of standard precautions in surgery. Skills will be practiced in a clinical setting.
Prerequisites: Admission to the Surgical Technology Program; BIOL 209/BIOL 209L, BIOL 210/BIOL 210L, BIOL 241, and PSYC 150.
Corequisites: SUTE 200, SUTE 202, SUTE 206, and SUTE 210.
Terms Typically Offered: Fall.

SUTE 206 Pharmacology for Surgical Technology 3 Credits
Exploration of safe use of prescription and nonprescription drugs. Emphasis will be placed on the impact of safe drug use in promoting and maintaining health. The course will examine how drugs affect the body by changing many of its normal mechanisms, thereby contributing to potential health problems during surgery.
Prerequisites: Admission to the Surgical Technology Program, BIOL 209/BIOL 209L, BIOL 210/BIOL 210L, BIOL 241, and PSYC 150.
Corequisites: SUTE 200, SUTE 202/SUTE 202L, and SUTE 210.
Terms Typically Offered: Fall.

SUTE 210 Safety and Equipment 3 Credits
Exploration of hazard prevention in the surgical setting. Students learn to prepare, plan, detect and communicate safety and security principles. Students learn tasks and responsibilities of incident-management, all- hazard preparation, and components of personal, community, and institutional disaster planning. Evidence based practice guidelines, healthcare regulations and legal considerations are discussed.
Prerequisites: Admission to the Surgical Technology Program, BIOL 209/BIOL 209L, BIOL 210/BIOL 210L, BIOL 241, and PSYC 150.
Corequisites: SUTE 200, SUTE 202/SUTE 202L, and SUTE 206.
Terms Typically Offered: Fall.

SUTE 212 Surgical Procedures and Instrumentation I 4 Credits
Exploration of surgical specialties, including but not limited to: general surgery, obstetrics and gynecologic, genitourinary, ear, nose, throat, oral, maxillofacial, pediatrics, and plastics. This course introduces the student to specialized instrumentation, surgical modalities, and a systems review of pathology, in conjunction with specific procedures performed for each surgical specialty.
Prerequisites: SUTE 200, SUTE 202/SUTE 202L, SUTE 206, and SUTE 210.
Corequisites: SUTE 212L, SUTE 218, SUTE 220, and SUTE 230.
Terms Typically Offered: Spring.

SUTE 212L Surgical Procedures and Instrumentation I Laboratory 2 Credits
Exploration of surgical specialties, including but not limited to: general surgery, obstetrics and gynecologic, genitourinary, ear, nose, throat, oral, maxillofacial, pediatrics, and plastics. This course introduces the student to specialized instrumentation, surgical modalities, and a systems review of pathology, in conjunction with specific procedures performed for each surgical specialty.
Prerequisites: SUTE 200, SUTE 202/SUTE 202L, SUTE 206, and SUTE 210.
Corequisites: SUTE 212, SUTE 218, SUTE 220, and SUTE 230.
Terms Typically Offered: Spring.
Fees: Yes.

SUTE 218 Surgical Procedures and Instrumentation II 4 Credits
Exploration of specific surgical specialties, including but not limited to: orthopedic, neurological, emergency trauma, ophthalmic, vascular, thoracic, and cardiac surgeries. The student will focus on specific procedures performed, specialized instrumentation, and surgical modalities of each specialty.
Prerequisites: SUTE 200, SUTE 202/SUTE 202L, SUTE 206, and SUTE 210.
Corequisites: SUTE 212/SUTE 212L, SUTE 220, and SUTE 230.
Terms Typically Offered: Spring.

SUTE 220 Surgical Clinical I 3 Credits
Demonstration of basic surgical technology skills and abilities. Emphasis is placed on accrual of practice experiences necessary for national certification. Students participate in general surgical procedures through a variety of surgical cases.
Prerequisites: SUTE 200, SUTE 202/SUTE 202L, SUTE 206, and SUTE 210.
Corequisites: SUTE 212/SUTE 212L and SUTE 218.
Terms Typically Offered: Spring.

SUTE 230 Surgical Clinical II 3 Credits
Demonstration of surgical technology skills and abilities of increasing complexity. Emphasis is placed on accrual of practice experiences necessary for national certification. Students participate in complex procedures through a variety of surgical cases.
Corequisites: SUTE 212/SUTE 212L, SUTE 218, and SUTE 220.
Terms Typically Offered: Spring.

SUTE 240 Surgical Clinical III 3 Credits
Demonstration of the roles and responsibilities of a surgical technologist. Emphasis is placed on preparation for minimally supervised practice and completion of the national certification exam. Students function in increasingly autonomous roles through a variety of surgical cases.
Prerequisites: SUTE 212/SUTE 212L, SUTE 218, SUTE 220, and SUTE 230.
Terms Typically Offered: Summer.
Fees: Yes.

Technology Integration (TECI)

Courses

TECI 111 Healthcare Data Management and Information Systems 3 Credits
Introduction to the electronic health record (EHR) components and health informatics including infrastructure, privacy, security, and legal implications. Federal involvement and its impact on information technology regarding health data will be discussed. The transformation of data into meaningful information, through research, vital statistics, and epidemiology will be demonstrated. Data quality, integrity, collection, access, and retention will also be emphasized.
Fees: Yes.

TECI 118 AC Passive Circuits 3 Credits
Analysis of AC circuits including resistors, capacitors, inductors, and use of standard test equipment. Three one-hour lectures and one one-and-one-half hour laboratory per week.
Corequisites: TECI 118L.

TECI 118L AC Passive Circuits Laboratory 1 Credit
Lab component required for TECI 118.
Corequisites: TECI 118.

TECI 120 A+ Certification Preparation 3 Credits
Personal computer hardware, networking concepts, operational procedures, and troubleshooting for a successful entry-level computer service technician position. Provides extensive hands-on work with computer systems, PC setup and configuration, and basic maintenance and troubleshooting. Preparation for the first CompTIA A+ Exam.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

TECI 131 Principles of Information Assurance (Security+ Prep) 3 Credits
Skills and knowledge associated with protecting information assets, determining the levels of protection and response to security incidents, and designing a consistent, reasonable information security system. Students learn to inspect and protect information assets, detect and react to threats to information assets, and examine pre- and post-incident procedures.
Terms Typically Offered: Fall.
Fees: Yes.

TECI 132 Introduction to IT Hardware and System Software 3 Credits
Basic hardware and software study of stand-alone or local/wide-area computers. Hands-on experience using 5x or above architecture.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

TECI 142 Internet of Things 3 Credits
Introduction to the Internet of Things (IoT), the aggregate collection of network-enabled devices, excluding traditional computers. Network connections include Wi-Fi connections, Bluetooth connections, and near-field communication. The IoT includes "smart" appliances, home security systems, computer peripherals, wearable technology, routers, and smart speaker devices. Topics include understanding how the IoT bridges the gap between operational and information technology systems.
Terms Typically Offered: Spring.
Fees: Yes.

TECI 163 Convergent Technologies 3 Credits
Introduction to telecommunications, including how data, voice, and video technologies are converging for telecommunications systems. Topics will also include wireless, ISDN, PCM, DSL, cable, IP voice, and computer networks.

TECI 170 Introduction to Communications 3 Credits
Overview of communication systems that include both central office based and premise based platforms. The switching and service components of RBOC and inter-exchange providers will be examined and discussed. Characteristics, advantages, and disadvantages of the various systems will be compared and contrasted. Architecture and design of switching infrastructures and components will also be covered.

TECI 180 Cisco Networking I 3 Credits
Foundation for the Cisco Certified Network Associate (CCNA) certification. Introduces the architecture, structure, functions, components, and models of the internet and other computer networks. Includes principles and structure of Internet Protocol (IP) addressing and the fundamentals of ethernet concepts, media, and operations. This is the first of three semester-long courses at Cisco NetAcad when pursuing the CCNA.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

TECI 185 Cisco Networking II 3 Credits
Second of four semester courses in Cisco's Networking Academy curriculum. Concepts covered are: safety; networking; network terminology and protocols; network standards; LANs, MANs, SANs, WANS; OSI model; ethernet; token ring; FDDI; TCP/IP addressing protocol; dynamic routing; and the network administrator's role and function.
Prerequisites: TECI 180.
Terms Typically Offered: Fall.
Fees: Yes.

TECI 195 Independent Study 1-4 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

TECI 196 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

TECI 201 Linux Configuration (OS) 3 Credits
Installation of a Linux operating system (OS). Configure and manage OS using command line interface (CLI) and text editor. Topics include: installation and configuration of updates, services, file system, users and groups, file and folder permissions, networking, and remote access.
Terms Typically Offered: Fall.
Fees: Yes.

TECI 202 Unix/Linux Server Administration 3 Credits
Knowledge and skills required to configure, administer and secure data, users and services in a UNIX or Linux server environment. Emphasis will be on command-line interface (CLI). Topics will also include system monitoring, performance tuning, troubleshooting and interoperability with Windows servers and clients.
Terms Typically Offered: Fall, Spring, Summer.

TECI 211 Windows Configuration (OS) 3 Credits
Knowledge and skills necessary to address the implementation and desktop support needs of customers who are planning to deploy and support Microsoft Windows Client OS in a variety of network operating system environments.
Terms Typically Offered: Spring.
Fees: Yes.

TECI 230 Cisco Networking III 3 Credits
Third of four semester courses in Cisco's Networking Academy curriculum. Concepts covered are: LAN switching; VLANs; LAN design; IGRP; access lists; and IPX/SPX. Concepts applied through design of a threaded case study (TCS).
Prerequisites: TECI 180 and TECI 185.
Terms Typically Offered: Spring.
Fees: Yes.

TECI 235 Cisco Networking IV 3 Credits
The fourth of four semester courses in Cisco's Networking Academy curriculum. Concepts covered are: WANs, SANs design; PPP; ISDN; Frame relay; Master documentation skills; with concepts applied through design of a Threaded Case Study (TCS).
Prerequisites: TECI 180, TECI 185, and TECI 230.

TECI 240 VoIP Fundamentals 3 Credits
Covers the components of engineering the telephone outside plant, fundamentals of transmission, resistance design, and distribution cable design in serving a customer area.

TECI 242 Cloud Computing 3 Credits
Introduction to cloud computing and how to install, configure, and manage a cloud environment. Builds on knowledge of hypervisor and virtual machine environments.
Terms Typically Offered: Spring.
Fees: Yes.

TECI 243 Hybrid Servers Integration 3 Credits
Introduction to server and networking foundational concepts that bridge the gap as students are introduced to on-premises Windows server management and cloud integration in a hybrid environment.
Terms Typically Offered: Fall.
Fees: Yes.

TECI 244 Windows Automation and Management Program 3 Credits
Introduction to command-line shell and scripting language tailored for task automation and configuration management across different platforms. Unlock remote capabilities, enabling the execution of commands on distant systems directly from a local machine.
Terms Typically Offered: Spring.
Fees: Yes.

TECI 245 Security Fundamentals 3 Credits
Comprehensive overview of network security. Includes general security concepts. Communication security includes remote access, e-mail, the Web, directory and file transfer, and wireless data. Common network attacks introduced. Cryptography basics incorporated. Operational/organizational security discusses as it relates to physical security, disaster recovery, and business continuity. Computer forensics introduced.

TECI 257 Network Defense and Counter Measures (CySA+ Preparation) 4 Credits
Examination of tools and technologies in the technical securing of information. Provides in-depth information about software and hardware components of Information Security and Assurance. Topics include: firewall configurations, hardening Unix and NT servers, Web and distributed systems security, and specific implementation of security modes and architectures. Curriculum maps to the Security Certified Network Professional (SCP) Network Defense and Countermeasures exam.
Prerequisites: TECI 131.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

TECI 260 Information Technology Hardware and System Software 3 Credits
Use of an internal systems approach to building and maintaining stand-alone or local/wide area computers utilized in networking. Hands on experience using 5x or above architecture.

TECI 265 Advanced IT Hardware and System Software 3 Credits
Windows Domain Management and Windows Deployment. Introduces Microsoft Deployment Toolkit (MDT) to accelerate and automate deployments of Windows 8, Windows Server 2012, Windows 7, Office 2010, and Windows Server 2008 R2. MDT provides a common console with comprehensive tools and guidance for every organizational role. Recommended process and toolset to automate large-scale desktop and server deployments.
Prerequisites: TECI 260.

TECI 270 Cisco Cybersecurity Operations Fundamentals (CBROPS) 4 Credits
Core and advanced security concepts and skills for Cisco networks.
Prerequisites: TECI 180 and TECI 185.
Terms Typically Offered: Spring.
Fees: Yes.

TECI 292 Capstone in Technical Engineering Planning and Economics 4 Credits
Knowledge to articulate the tactical planning functions performed within capacity provisioning. Access and apply the various tactical planning tools and data elements to supporting documentation. Economic principles in costing, value, capital investment, profitability and inventory.

TECI 295 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

Theatre (THEA)

Courses

THEA 102 Introduction to Theatre Technology: Stagecraft 3 Credits
Introduction to basic scene shop safety, organization of materials, hand and machine carpentry and basic stagecraft techniques.
Terms Typically Offered: Fall.
Fees: Yes.

THEA 103 Introduction to Theatre Technology: Costume 3 Credits
Introduction to basic costume shop safety, organization, materials, and hand and machine sewing.
Terms Typically Offered: Fall.
Fees: Yes.

THEA 104 Introduction to Theatre Technology: Lighting 3 Credits
Introduction to basic lighting shop safety, organization of materials, electrical repair, and basic hang and focus techniques.
Terms Typically Offered: Spring.

THEA 105 Introduction to Theatre Technology: Sound Technology 3 Credits
Introduction to basic theatre sound design, protocol, and execution, including live audio technology and computer editing.
Terms Typically Offered: Spring.

THEA 114 Summer Theatre 3 Credits
Professional summer theatre experience. The student is expected to participate in all phases of the theatre operation including acting, technical work, directing, box office management, etc. It is advisable for a student enrolled in summer theatre not to enroll in any other class. Five plays are presented in a seven-week period.

THEA 116 Music Theatre Workshop 1 Credit
Performance-based ensemble that combines musical theatre singing, acting, and dancing into a unified performance. Through focus on the works of specific composers and/or stylistic eras, students will produce and perform a musical revue for a public audience. Intended for Music Theatre majors, but students from other disciplines are invited to enroll. For first year students.
Prerequisites: THEA 153 and MUSL 137.
Terms Typically Offered: Spring.

THEA 128 Theatre Forums 1 Credit
Specialized workshops in various aspects of theatre made possible by visiting artists and/or lecturers or by attending seminars or workshops. Papers and discussions are used for evaluation.

THEA 129 Theatre Forums 1 Credit
Specialized workshops in various aspects of theatre made possible by visiting artists and/or lecturers or by attending seminars or workshops. Papers and discussions are used for evaluation.

THEA 130 Script Analysis 3 Credits
Introduction to practical analysis of theatrical texts. Familiarizes students with script analysis techniques useful in production and performance studies.
Terms Typically Offered: Spring.

THEA 141 Theatre Appreciation-GTAH1 3 Credits
Examination of basic presentation techniques and history of theatre.
Essential Learning Categories: Fine Arts
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum
Terms Typically Offered: Fall, Spring.

THEA 142 Make-up 3 Credits
Introduction to all types of make-up for the stage. Students examine straight and character make-up techniques and learn the use of crepe hair, prosthetics, and other material.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

THEA 145 Introduction to Dramatic Literature-GTAH1 3 Credits
Dramatic literature from classical Greeks to modern dramatists.
Essential Learning Categories: Fine Arts
Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum

THEA 150 Fundamentals of Acting 3 Credits
Basic components of the acting process, including scene work, improvisation, and audition techniques for non-theatre majors.
Terms Typically Offered: Fall.

THEA 153 Acting I: Beginning Acting 3 Credits
Basic components of the acting process, including scene work, improvisation, and audition techniques for theatre majors. Students perform in solo, duo, and/or group scenes.
Prerequisites: Theatre Arts major or minor in good standing.
Terms Typically Offered: Fall.

THEA 156 Acting II: Contemporary Scenework 3 Credits
Further development in the application of Stanislavski-based theory studied in Acting I. Includes substantial scene and monologue work in addition to beat analysis. Continued investigation into the depth and breadth of the actor's art.
Prerequisites: THEA 153 or THEA 150.
Terms Typically Offered: Spring.

THEA 196 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

THEA 202 Elements of Theatrical Design 3 Credits
Exposure to the elements of design in a theatrical context through lectures and projects.
Terms Typically Offered: Fall.
Fees: Yes.

THEA 213 Creative Play Activities-Drama 2 Credits
Creative dramatics in a learning situation. Includes subject matter of interest to anyone in early childhood education, general education, social work, religious education, and/or recreation.

THEA 214 Summer Theatre 3 Credits
See THEA 114.

THEA 216 Music Theatre Workshop 1 Credit
Performance-based ensemble that combines musical theatre singing, acting, and dancing into a unified performance. Through focus on the works of specific composers and/or stylistic eras, students will produce and perform a musical revue for a public audience. Intended for Music Theatre majors, but students from other disciplines are invited to enroll. For second year students.
Prerequisites: THEA 153 or MUSL 137.
Terms Typically Offered: Spring.

THEA 218 Play Production 1 Credit
Practical course in stagecraft concerned with all phases of production of plays. For first and second year students.
Terms Typically Offered: Fall, Spring.
Course may be taken multiple times up to maximum of 4 credit hours.

THEA 220 Technical Performance 1 Credit
Direct participation in the technical aspects of various productions. For first and second year students.
Terms Typically Offered: Fall, Spring.
Course may be taken multiple times up to maximum of 4 credit hours.

THEA 228 Theatre Forums 1 Credit
See THEA 128 or THEA 129.

THEA 229 Theatre Forums 1 Credit
See THEA 128 or THEA 129.
Course may be taken 10 times for credit.

THEA 231 Theatre History I: 400 BCE to 1642 CE 3 Credits
History of theatre as an institution and its relationship to the artistic, social, and economic environment, from 400 B.C.E. through Shakespeare (1642 C.E.).
Terms Typically Offered: Fall.

THEA 232 Theatre History II: 1642 CE to Present 3 Credits
History of theatre as an institution and its relationship to the artistic, social, and economic environment, from Shakespeare (1642 C.E.) to present.
Terms Typically Offered: Spring.

THEA 248 Drama Performance 1 Credit
Performance by the student in a major campus production. For first and second year students.
Prerequisites: Instructor permission.
Terms Typically Offered: Fall, Spring.
Course may be taken multiple times up to maximum of 8 credit hours.

THEA 253 Acting IV: Stage Movement 3 Credits
Exploration of the art of movement for performers. Starting with the development of personal comfort and body awareness, students will delve into various dimensions of physical dramatic expression. The course emphasizes collaborative skills through partner work, focusing on contact and connection. Beyond the classroom, discover practical applications for movement in diverse performance contexts.
Prerequisites: THEA 156 and SPCH 112.
Terms Typically Offered: Spring.

THEA 255 Musical Theatre Techniques 3 Credits
Exploration of solo song interpretation. Emphasis on basic mechanical, analytical, and physical skills needed to perform musical theatre. Building on an acting foundation, issues of range and vocal support as well as style and repertory will be emphasized.
Prerequisites: THEA 150 or THEA 153; MUSA 137, or one semester of private vocal study, or by permission of instructor.

THEA 256 Auditions 3 Credits
Resume writing. Choice and preparation of effective audition pieces.
Prerequisites: THEA 153 and THEA 156.

THEA 296 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

THEA 300 Advanced Acting: Stage Combat 2 Credits
This course is designed to introduce the actor to advanced study in various theatrical fighting styles including: unarmed, rapier and dagger, sword and shield, smallsword, broadsword, knife, single sword, and quarterstaff. The student will learn stage combat techniques adapted from actual historical fighting techniques and use those techniques in scenework.
Prerequisites: THEA 253.
Course may be taken 3 times for credit.

THEA 313 Rendering for Theatre 3 Credits
Exploration of conventional drawing and rendering principles, techniques, and mediums (both hand and computer-aided) for theatre, through practical application.
Prerequisites: THEA 202.
Terms Typically Offered: Fall, Spring.

THEA 314 Summer Theatre 3 Credits
See THEA 114.

THEA 316 Music Theatre Workshop 1 Credit
A performance-based ensemble that combines musical theatre singing, acting, and dancing into a unified performance. Through focus on the works of specific composers and/or stylistic eras, students will produce and perform a musical revue for a public audience. Intended for Music Theatre majors, but students from other disciplines are invited to enroll.
Prerequisites: THEA 153, MUSL 137, or permission of instructor.

THEA 322 Stage Management 3 Credits
Theory and principles of human resources management, theatre technical production, and actual stage management situations.
Terms Typically Offered: Spring.

THEA 323 Computer Aided Drafting for the Theatre 3 Credits
Exploration of Vectorworks and other 3D computer aided drafting software (CAD) to create plots and drawings for theatrical scenic and lighting designs.
Prerequisites: THEA 102 and THEA 104.

THEA 325 Rigging and Special Effects 3 Credits
Introduction to stage rigging, hanging lighting and scenery, weighting, safety, and flying hard and soft goods. Advanced technique of theatre technology including smoke, electrics, and other backstage effects.
Prerequisites: THEA 102 and THEA 104.

THEA 327 Multimedia Technology for the Theatre 3 Credits
Application of video projection technology and integrated show control software to create original designs for live performance.
Prerequisites: THEA 102 and THEA 104.

THEA 328 Theatre Forums 1 Credit
See THEA 128 or THEA 129.

THEA 329 Theatre Forums 1 Credit
See THEA 128 or THEA 129.

THEA 330 Advanced Script Analysis 3 Credits
Advanced analysis of a variety of dramatic texts intended for performance.
Prerequisites: THEA 145.
Terms Typically Offered: Spring.

THEA 331 Theatre History I: 400 B.C. to 1642 3 Credits
History of theatre as an institution and its relationship to the other arts and to the social and economic environment, from 400 B.C. to 1642 A.D.

THEA 332 Theatre History II: From 1642 to the Present 3 Credits
Major world theatre events from 1642 to the present day.

THEA 333 Art, Architecture and Fashion: Prehistory to the Present 3 Credits
Exploration of art, architecture, and fashion from Pre-History to the present.
Terms Typically Offered: Spring.

THEA 340 Costume Design 3 Credits
Principles, practices, and techniques of Costume Design.
Prerequisites: THEA 202.
Terms Typically Offered: Spring.

THEA 341 Musical Theatre History and Literature 3 Credits
In-depth study of the literature and styles of the master composers of music theatre from its beginnings through the present day. Course work is designed for the Musical Theatre major, utilizing lecture and listening lab format and a research paper on a subject of the student's choice.

THEA 342 Sound Design 3 Credits
Theory and application of conceptual sound design for live theatre. Emphasis on show control software and tools used for live audio engineering.
Prerequisites: THEA 202.
Terms Typically Offered: Fall, Spring.

THEA 343 Scene Design 3 Credits
Experience in the designing of scenery and props for various types of productions with emphasis on research, acquisition, drafting, perspective, and rendering techniques.
Prerequisites: THEA 202.
Terms Typically Offered: Fall.

THEA 344 Lighting Design 3 Credits
Advanced training in the design and execution of lighting for the stage.
Prerequisites: THEA 202.
Terms Typically Offered: Fall.

THEA 345 World Drama 3 Credits
Students will examine the richness and diversity of contemporary world theatre and drama from a global context.

THEA 348 Drama Performance 1 Credit
Performance by the student in a major campus production. For third year students.
Prerequisites: Instructor permission.
Terms Typically Offered: Fall, Spring.
Course may be taken multiple times up to maximum of 4 credit hours.

THEA 353 Advanced Acting: Styles in Acting 3 Credits
Various styles of acting used for the Classical, Elizabethan, Romantic, 19th century Melodrama and Realistic periods.
Prerequisites: THEA 256 or permission of instructor.

THEA 354 Advanced Acting: The Meisner Approach 3 Credits
An examination of the Meisner Approach, the "film industry standard" technique that actors use to explore the Realistic/Naturalistic genre of plays and screenplays.
Prerequisites: THEA 256 or permission of instructor.

THEA 355 Music Theatre Repertoire 3 Credits
Further development of song interpretation through scene study and ensemble performance. Emphasis on creating performances unified both dramatically and musically through show research and script analysis to develop characterization.
Prerequisites: THEA 255, DANC 174, and DANC 177, or permission of instructor.

THEA 356 Advanced Acting: Dialects 3 Credits
Introduces students to the fundamentals of acting while using common stage dialects.
Prerequisites: SPCH 112 and THEA 256, or permission of instructor.

THEA 360 Advanced Costume Technology 3 Credits
Introduction to advanced construction techniques, basic flat patterning and draping, and interpreting a rendering into a finished garment.
Prerequisites: THEA 103.

THEA 369 Improvisation 2 Credits
Introduction to basic improvisational acting techniques, utilizing guided lectures and exercises and illustrating the role of non-script work in the development of the student actor. Students will create characters, scenes, and short original works.
Prerequisites: THEA 256.

THEA 376 World's Greatest Films 3 Credits
Aesthetics and elements that qualify film as an important art form as seen through the major contributors from three important culturally diverse areas of the world: Europe, Asia and America.

THEA 380 Playwriting I 3 Credits
Fundamentals of playwriting through a systematic, textual approach, the proper format of scriptwriting, and the writing of short scripts based on common thematic elements.

THEA 381 Directing I 3 Credits
The fundamentals of directing culminating in the direction of a scene or short play for public viewing.
Prerequisites: Junior or senior level Acting/Directing major, or permission of instructor.

THEA 382 Directing II 3 Credits
Advanced directing techniques and production of a one-act play for public viewing.
Prerequisites: THEA 381 or permission of instructor.

THEA 395 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

THEA 396 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

THEA 401 Career Preparation 3 Credits
An introduction to the administrative and business aspects of the performing arts.
Prerequisites: Senior standing or permission of instructor.

THEA 403 Methods of Teaching Drama and Speech 3 Credits
Teaching communication, speechmaking, debate and discussion, creative drama, oral interpretation, play selection and direction in the public schools.
Prerequisites: Junior standing in English education or speech/theatre programs.

THEA 411 American Drama 3 Credits
The study of American drama and theatre trends from the first American playwright to the current trends of today.

THEA 412 Contemporary Drama 3 Credits
A study of contemporary drama from the advent of Realism to the present day.

THEA 414 Summer Theatre 3 Credits
See THEA 114.

THEA 416 Music Theatre Workshop 1 Credit
A performance-based ensemble that combines musical theatre singing, acting, and dancing into a unified performance. Through focus on the works of specific composers and/or stylistic eras, students will produce and perform a musical revue for a public audience. Intended for Music Theatre majors, but students from other disciplines are invited to enroll.
Prerequisites: THEA 153, MUSL 137, or permission of instructor.

THEA 418 Play Production 1 Credit
Practical course in stagecraft concerned with all phases of production of plays. For third and fourth year students.
Prerequisites: THEA 218.
Terms Typically Offered: Fall, Spring.
Course may be taken multiple times up to maximum of 4 credit hours.

THEA 420 Technical Performance 1 Credit
Direct participation in the technical aspects of various productions. For third and fourth year students.
Prerequisites: THEA 220.
Terms Typically Offered: Fall, Spring.
Course may be taken multiple times up to maximum of 4 credit hours.

THEA 428 Theatre Forums 1 Credit
See THEA 128 or THEA 129.

THEA 429 Theatre Forums 1 Credit
See THEA 128 or THEA 129.

THEA 445 Senior Tech/Design Capstone 3 Credits
Work experience in various aspects of theatre tech/design.
Prerequisites: Senior standing or permission of instructor.

THEA 446 Senior Tech/Design Capstone 3 Credits
Work experience in various aspects of theatre tech/design.
Prerequisites: Senior standing or permission of instructor.

THEA 448 Drama Performance 1 Credit
Performance by the student in a major campus production. For fourth year students.
Prerequisites: Instructor permission.
Terms Typically Offered: Fall, Spring.
Course may be taken multiple times up to maximum of 4 credit hours.

THEA 453 Advanced Acting: Acting for the Camera 3 Credits
The transition from stage acting techniques to camera acting techniques. Students will have the opportunity to work on camera with simplified sets and properties.
Prerequisites: THEA 256 or permission of instructor.

THEA 454 Acting V: Shakespeare 3 Credits
An in-depth exploration of acting approaches to the verse drama of Shakespeare.
Prerequisites: THEA 253.

THEA 459 Advanced Acting: Chekhov Technique 3 Credits
Introduction and exploration of the Michael Chekhov Acting technique.
Prerequisites: THEA 256 or permission of instructor.

THEA 490 Honors Seminar 3 Credits
Advanced study of the creative process for students accepted into the Theatre Arts Honors Program. Topics will include commonalities to all creative processes and the interface between the artist, their work, and their community.
Prerequisites: Acceptance into the Theatre Arts Honors Program.

THEA 494 Performance Seminar: Acting/Directing and Musical Theatre Capstone 3 Credits
Exploration of theories of audition, rehearsal and performance for upper division performance majors.

THEA 495 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

THEA 496 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

THEA 498 Honors Project/Thesis 3 Credits
Development of individualized research and writing for the student accepted into the Department of Theatre Arts Honors program.
Prerequisites: Acceptance into the Theatre Arts Honors Program.

THEA 499 Internship 1-9 Credits
Work in acting/directing, design/tech, music theatre and theatre management, or other situations that meet the instructor's approval.
Prerequisites: Senior standing and permission of the instructors.
Course may be taken multiple times up to maximum of 15 credit hours.

Transportation Services-Automotive (TSTA)

Courses

TSTA 245 Manual Drive Trains 4 Credits
Standard repair practices for drive train components to include: clutch, transmission, transaxle, drive axle, driveline, c-v, and R & R procedures.
Prerequisites: TSTC 100 and TSTC 101.
Terms Typically Offered: Fall.
Fees: Yes.

TSTA 247 Automatic Drive Train Service 4 Credits
Standard repair practices for automatic drive trains to include: diagnosis, testing, R & R, and servicing of transaxles/rear wheel drive transmissions.
Prerequisites: TSTC 100 and TSTC 101.
Terms Typically Offered: Fall.
Fees: Yes.

TSTA 265 Engine Control Services 3 Credits
Repair and diagnosis of engine control systems, with an emphasis on scan tool diagnosis and live, hands-on repair of systems.
Prerequisites: TSTC 100, TSTC 101, and TSTC 130.
Terms Typically Offered: Fall.
Fees: Yes.

TSTA 267 Body Controls 3 Credits
Theory, repair, and diagnosis of body accessories including air bags, electronic monitors, power seats, windows, and wipers.
Prerequisites: TSTC 100, TSTC 101, and TSTC 130.
Terms Typically Offered: Spring.
Fees: Yes.

TSTA 275 Alignment and Suspension Service 3 Credits
Repair of suspension systems to include alignments: (2 and 4 wheels), R&R suspension components, and pre-alignment inspections.
Prerequisites: TSTC 100, TSTC 101, and TSTC 170.
Terms Typically Offered: Fall.
Fees: Yes.

TSTA 286 Hybrid and Alternative Fueled Vehicles 2 Credits
Introduction to hybrid and alternative fueled vehicle technology in the transportation industry. Topics include power and transmission designs, batteries, plug-in technology, control systems, safety, associated systems, diagnostics, and repair of modern hybrid/alternative fueled vehicles.
Prerequisites: TSTC 100, TSTC 101, and TSTC 130.
Terms Typically Offered: Spring.
Fees: Yes.

TSTA 287 Engine Performance and Emissions 3 Credits
Diagnosis and repair of engine performance and emissions-related failures. Emphasis on strategy based diagnostics through the use of exhaust gas analysis.
Prerequisites: TSTC 100, TSTC 101, TSTC 130, and TSTA 265.
Terms Typically Offered: Spring.
Fees: Yes.

Transportation Services -Core (TSTC)

Courses

TSTC 100 Introduction to Transportation Services 2 Credits
Introduction to procedures, tool usage, basic shop safety, basic employment skills, job documentation, and equipment usage.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

TSTC 101 Vehicle Service and Inspection 3 Credits
Introduction to vehicle systems, maintenance, inspection, internal combustion engine theory, systems diagnosis, fundamentals, and evaluation. Service of the vehicle systems with emphasis on inspection and observation.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

TSTC 130 Electrical I 2 Credits
Introduction to electrical theory, circuits, components, testing, and use of test equipment.
Prerequisites: TSTC 100 and TSTC 101.
Terms Typically Offered: Fall.
Fees: Yes.

TSTC 160 Electrical II 2 Credits
Study of electronic control systems applied to today's modern vehicles. Emphasis on sensors, actuators, and diagnostic techniques.
Prerequisites: TSTC 100, TSTC 101, and TSTC 130 (TSTC 130 may be taken concurrently).
Terms Typically Offered: Spring.
Fees: Yes.

TSTC 170 Chassis Fundamentals 2 Credits
Introduction to front and rear suspension systems, including: steering front end geometry, maintenance, light repair, and component nomenclature.
Prerequisites: TSTC 100 and TSTC 101.
Terms Typically Offered: Fall.
Fees: Yes.

TSTC 171 Brakes I 2 Credits
Theory, components, general repair practices, and diagnosis of current brake systems.
Prerequisites: TSTC 100 and TSTC 101.
Terms Typically Offered: Fall.
Fees: Yes.

TSTC 195 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

Transportation Services-Diesel (TSTD)

Courses

TSTD 177 Air Systems Repair and Service 2 Credits
Study of air systems on the heavy duty truck. The brakes, transmission shift, seats, and rear axle shift will be covered, including service and repair of components and systems. Repair of foundation brakes will also be included.
Prerequisites: TSTC 100, TSTC 101, TSTC 171, and TSTG 175.
Terms Typically Offered: Spring.
Fees: Yes.

TSTD 215 Diesel Engine Reconditioning 5 Credits
Industry standard rebuild practices for diesel engines. Removal and reinstallation (R & R) of engine, complete disassembly, assembly, running of engine, tune-up, and fuel system adjustments are covered.
Prerequisites: TSTC 100 and TSTC 101.
Terms Typically Offered: Spring.

TSTD 265 Diesel Engine Controls 3 Credits
Repair and diagnosis of engine control systems, with an emphasis on scan tool diagnosis and live, hands-on repair of systems.
Prerequisites: TSTC 100, TSTC 101, and TSTC 130.
Terms Typically Offered: Spring.
Fees: Yes.

TSTD 275 Heavy Duty Suspension 2 Credits
Types of on-road suspensions, tires, repair of components, diagnosis, measurements, and adjustments to front and rear suspensions.
Prerequisites: TSTC 100, TSTC 101, and TSTC 170.
Terms Typically Offered: Fall.
Fees: Yes.

TSTD 276 Diesel Aftertreatment and Emission Systems 3 Credits
Diagnosis and repair of diesel emission reduction systems, including diesel emission DPF and SCR systems used on modern engines. Emphasis on using a logic-based diagnostic approach and interpreting scan tool data.
Prerequisites: TSTC 100, TSTC 101, and TSTC 130 (TSTC 130 may be taken concurrently).
Terms Typically Offered: Spring.

TSTD 280 Hydraulic Systems Service and Repair 3 Credits
Construction, application, repair, maintenance, and troubleshooting of hydraulic components and systems.
Prerequisites: TSTC 100 and TSTC 101 (both may be taken concurrently).
Terms Typically Offered: Fall, Summer.

TSTD 295 Independent Study 1-4 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

Transportation Services-General (TSTG)

Courses

TSTG 120 Industrial Safety Practices 2 Credits
Overview of current OSHA and EPA general industry regulations, with an emphasis on hazardous materials, right-to-know, record keeping, and worker role in safety.
Terms Typically Offered: Fall, Spring.

TSTG 135 Starting and Charging Systems 2 Credits
Electrical component repair, including: alternators, starters, wiring, and other electrical components.
Prerequisites: TSTC 100, TSTC 101, and TSTC 130.
Terms Typically Offered: Fall.
Fees: Yes.

TSTG 145 Technology in the Automotive Field 1 Credit
Utilization of Excel spreadsheets, Word documents, PowerPoint, and other automotive-specific technology for informational purposes.
Terms Typically Offered: Spring.

TSTG 150 Introduction to Fluid Power 3 Credits
Principles of hydraulics and pneumatic system, including the construction, application, repair, maintenance, and troubleshooting of components and systems.
Terms Typically Offered: Spring.
Fees: Yes.

TSTG 175 Brakes II 2 Credits
Repair of brake systems to include: shoes, pads, cylinder reconditioning, machining rotors and drums, diagnosis, bleeding, R & R components, and parking brakes.
Prerequisites: TSTC 100, TSTC 101, and TSTC 171.
Terms Typically Offered: Fall.
Fees: Yes.

TSTG 195 Climate Control 4 Credits
Repair, diagnosis, removal, and/or replacement of climate control components. Includes charging, recycling, and testing of heating and air conditioning systems of over the road vehicles. Theory of operation, nomenclature, identification, safety, and environmental impact factors of air conditioning. Also covers heating and ventilation systems.
Prerequisites: TSTC 100 and TSTC 101.
Terms Typically Offered: Spring.
Fees: Yes.

TSTG 196 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

TSTG 215 Engine Reconditioning 5 Credits
Industry standard rebuild practices for engines. Removal of engine, complete disassembly, reassembly, and running of engine is covered. Tune-up and fuel system adjustments are covered.
Prerequisites: TSTC 100 and TSTC 101.
Terms Typically Offered: Fall.
Fees: Yes.

TSTG 220 Workplace Skills 3 Credits
Development of employment skills encompassing leadership, goal setting, personal traits, conflict resolution, quality time management, lifelong learning, written and oral communication, and customer relations.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

TSTG 240 Job Shop 4 Credits
Application of workplace skills in a controlled shop environment, through the use of real-life lab work projects, performed in house, when internships or co-op opportunities are not available.
Prerequisites: Sophomore Status.
Terms Typically Offered: Spring.
Fees: Yes.

TSTG 245 Technology in the Automotive Field II 1 Credit
Advanced utilization of Excel spreadsheets, Word documents, PowerPoint, and other automotive-specific technology for informational purposes. Use of technology for business marketing.
Terms Typically Offered: Spring.

TSTG 270 Practical Applications 4 Credits
Development of student competency through the use of internships or co-op training and real-life shop experiences in the student's chosen area specialty.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

TSTG 275 ABS Diagnostics 2 Credits
Introduction to anti-lock brake systems to include: ABS types and operation, diagnostics, traction control, stability control, regerative braking, and active braking systems.
Prerequisites: TSTC 100, TSTC 101, TSTC 130, TSTC 171, and TSTG 175.
Terms Typically Offered: Fall.
Fees: Yes.

TSTG 295 Independent Study 1-3 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

TSTG 296 Topics 1 or 2 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

University College (UNIV)

Courses

UNIV 096 Gearing Up For College 1-3 Credits

UNIV 100 College Success Skills 1 Credit
Introduction to fundamental learning skills for Compass students, first semester management strategies and campus resources specific to the higher education environment. Emphasized development of basic practical competencies necessary for successful completion of entry level university courses.
Terms Typically Offered: Fall.

UNIV 101 First Year College Success 2 Credits
Preparation to maximize college success by promoting academic and collegiate knowledge and skills. Emphasis on developing skills for the high school transition, college success, inter- and intra-personal interactions, and transition to professional life. Topics include: note taking, testing strategies, reading techniques, memory, critical thinking, stress management, utilization of campus resources, academic planning, networking, and teamwork skills.
Terms Typically Offered: Fall.

UNIV 102 Community College Success 2 Credits
Introduction to fundamental learning skills and first semester learning and management strategies, specifically for students engaged in career and technical education pathways.

UNIV 103 Community College Success II 1 Credit
Continued support strategies for students in the second semester of college.
Prerequisites: UNIV 102.

UNIV 104 Beyond College Success 1 Credit
Advanced college success skills to develop student independence and enhance personal and professional growth. Emphasis on self-discovery, practical application of success strategies, and implementation of an academic plan including co-curricular involvement and major/career goals.
Prerequisites: UNIV 100.
Terms Typically Offered: Fall, Spring.

UNIV 105 Competency Portfolio Development 1 Credit
Required preparation of learning portfolio for assessment of academic credit. Will aid in organization and completion of portfolio for prior learning experiences; workshop credit is unrelated to final approval of portfolio for specific course credit.

UNIV 106 International Student College Success 1 Credit
Assistance and guidance for international students to maximize their potential for success in college. Emphasis on the academic classroom expectations, policies, and procedures as well as on the social and emotional aspects associated with the transition to life as a college student in the United States.
Terms Typically Offered: Fall.

UNIV 151 College Learning: Strategies and Success 1 Credit
Introduction to fundamental learning skills for concurrent students, which include introduction to the higher education environment, first-semester management strategies, communication skills, and basic practical competencies necessary for successful completion of career technical university courses.
Terms Typically Offered: Fall.

UNIV 196 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

UNIV 201 Theory and Practice of College Peer Tutoring 3 Credits
General and specific training for college level peer tutoring. Readings, discussion, experiential exercises expose students to contemporary learning theories, learning enhancement techniques, and effective applications to group and individual learning situations. Supervised tutoring practicum applies theories and concepts to actual tutoring sessions.
Prerequisites: Permission of instructor; 2.5 GPA; recommendation by instructor in subject area.

UNIV 202 Sophomore Year Experience 2 Credits
Exploration of career and academic interests. Emphasis on self-discovery, resume building, making connections with faculty and community members, and solidification of academic plans. Includes a follow-up opportunity to job shadow and participate in service learning.
Prerequisites: Sophomore level standing and permission of instructor.

UNIV 296 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Unmanned Aircraft Systems (UASP)

Courses

UASP 101 UAS Pilot Ground School 3 Credits
Exploration of Unmanned Aircraft Systems (UAS). Includes history and terminology, all aspects of legal compliance (both recreational and commercial), and what UAS can do.
Terms Typically Offered: Fall.

UASP 110 UAS Pilot License Preparation 1 Credit
Preparation for the FAA Commercial UAS Pilot License. All topics on the FAA Remote Pilot - Small Unmanned Aircraft Systems Knowledge Test are covered.
Terms Typically Offered: Fall.

UASP 120 UAS Pilot Operations and Applications 1 Credit
Development of proficiency in flying UAS. Students will learn how to prepare for and conduct a data gathering mission. All aspects of flight, including sensor payloads, are explored. Includes hands-on experience flying UAS.
Terms Typically Offered: Fall.

Veterinary Technology (VETT)

Courses

VETT 102 Veterinary Medical Terminology 2 Credits
Introduction to the structure of veterinary medical terms with emphasis on using and combining the most common prefixes, roots and suffixes. Includes terms related to body systems, treatment and surgical procedures, clinical laboratory and diagnostic procedures, as well as industry shorthand, abbreviations and acronyms. Class structure provides accepted pronunciation of terms and relative use in the veterinary specific setting.
Terms Typically Offered: Fall, Spring.

VETT 106 Exotic Animal Handling 2 Credits
Knowledge and skills required for veterinary technicians. This course focuses on exotic animal husbandry, handling, restraint, and specific problems encountered with exotic animals.
Prerequisites: VETT 116.
Terms Typically Offered: Fall.
Fees: Yes.

VETT 108 Introduction to Laboratory Procedures 3 Credits
Biology, clinical appearance, and laboratory diagnosis of parasitic diseases of veterinary and zoonotic importance.
Prerequisites: Admission to the Veterinary Technology program.
Terms Typically Offered: Spring.
Fees: Yes.

VETT 109 Applied Companion Animal Behavior 3 Credits
Exploration of companion animal behavior through: critical reviews of behavioral literature and its implications for applied techniques in behavior, demonstrations of applied techniques for modifying animal behavior, principles of companion animal body posture, everyday treatment of animals. Focuses on treatment of animals in veterinary practice, including improving handling techniques and safety.
Terms Typically Offered: Fall, Spring.

VETT 115 Surgical Nursing for Veterinary Technicians 2 Credits
Background in veterinary medicine, including familiarity with instruments, surgical support equipment, and proficiency in the proper preparation of the operating room.
Prerequisites: VETT 116.
Terms Typically Offered: Fall.
Fees: Yes.

VETT 116 Humane Treatment and Handling of Animals 3 Credits
Introduction to animal welfare and humane treatment during handling and restraint. Also covers behavior, safety, equipment choice, and typical clinical procedures.
Prerequisites: Admission to the Veterinary Technology program.
Terms Typically Offered: Spring.
Fees: Yes.

VETT 120 Office Procedures and Relations 2 Credits
Presentation of common veterinary office procedures including administration, professional etiquette, client relations, career development and job searching skills. Emphasis on computer skills in relationship to current veterinary management software.
Terms Typically Offered: Fall, Spring.

VETT 134 Diagnostic Imaging 2 Credits
Coverage of selected areas of diagnostic imaging, with an emphasis on radiology. Topics include: radiation properties, x-ray production, radiographic equipment, darkroom procedures, the radiographic image, animal positioning, and radiation safety. An introduction to special imaging techniques such as computed tomography (CT scan) and ultrasound will also be included.
Prerequisites: VETT 102 and VETT 116.
Corequisites: VETT 280.
Terms Typically Offered: Summer.

VETT 172 First Year Clinical Basics 2 Credits
Basic animal care, examination, and handling skills essential for veterinary technicians. Focus on cats and dogs. Includes restraining animals safely and effectively, performing thorough physical examinations, obtaining accurate physiological data, obtaining a complete patient history, performing a nail trim, administering vaccines, and collecting blood sample.
Prerequisites: VETT 109, VETT 116, and VETT 120.
Terms Typically Offered: Summer.

VETT 196 Topics 1-6 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

VETT 205 Veterinary Anatomy and Physiology I 3 Credits
Background on the anatomy and physiology of animals. Includes the structure and function of the following body systems: musculoskeletal, cardiovascular, respiratory, reproductive, and urogenital. Other subjects include unique characteristics of common domestic species. Applied laboratory experiences will cover the following species: canine, feline, equine, and bovine.
Prerequisites: VETT 102 and VETT 116.
Corequisites: VETT 205L.
Terms Typically Offered: Summer.

VETT 205L Veterinary Anatomy and Physiology I Laboratory 1 Credit
Background on the anatomy and physiology of animals. Includes the structure and function of the following body systems: Musculoskeletal, cardiovascular, respiratory, reproductive, and urogenital. Other subjects include unique characteristics of common domestic species. Applied laboratory experiences will cover the following species: canine, feline, equine, and bovine.
Prerequisites: VETT 102 and VETT 116.
Corequisites: VETT 205.
Terms Typically Offered: Summer.
Fees: Yes.

VETT 206 Veterinary Anatomy and Physiology II 3 Credits
Continued study of anatomy and physiology of companion and farm species. The class covers relationships between body systems, metabolism and physiology. The following systems will be covered in this second portion of anatomy and physiology: integumentary, neurologic, digestive, endocrine, immunologic, acid-base balance, and fluid regulation. Applied laboratory experiences are included as well as clinical applications of anatomy.
Prerequisites: VETT 205/VETT 205L.
Corequisites: VETT 206L.
Terms Typically Offered: Fall.

VETT 206L Veterinary Anatomy and Physiology II Laboratory 1 Credit
Continued study of anatomy and physiology of companion and farm species. The class covers relationships between body systems, metabolism and physiology. The following systems will be covered in this second portion of anatomy and physiology: integumentary, neurologic, digestive, endocrine, immunologic, acid-base balance, and fluid regulation. Applied laboratory experiences are included as well as clinical applications of anatomy.
Prerequisites: VETT 205/VETT 205L.
Corequisites: VETT 206.
Terms Typically Offered: Fall.
Fees: Yes.

VETT 223 Introduction to Anesthesia 1 Credit
Examination of basic principles in veterinary anesthesiology. Includes the role of the veterinary technician anesthetist, important concepts relating to various types of anesthesia, preparation of anesthetic equipment and machines, pre-operative patient management, and recording information during anesthesia.
Prerequisites: VETT 108.
Corequisites: VETT 224.
Terms Typically Offered: Fall.
Fees: Yes.

VETT 224 Pharmacology for Veterinary Technicians 3 Credits
Background in pharmacology principles, including: mechanism of drug action, types of drugs, anesthetic agents, pharmacy management, and calculations related to drug dosages.
Prerequisites: VETT 205.
Corequisites: VETT 223.
Terms Typically Offered: Fall.

VETT 225 Anesthesiology 3 Credits
Introduction to injectable and gaseous anesthesia appropriate for surgical and diagnostic procedures. Other topics include: anesthesia monitoring, emergency procedures, and control of post-surgical pain.
Prerequisites: VETT 223 and VETT 224.
Corequisites: VETT 238.
Terms Typically Offered: Spring.
Fees: Yes.

VETT 227 Animal Nutrition 2 Credits
Foundation in the principles of animal nutrition. The course focuses on the basic elements of nutrition, including the major categories of nutrients and their sources, digestion, and metabolism. Both large and small animal feeds and feeding will be covered. Emphasis on the relationship between nutrition and health.
Prerequisites: VETT 205.
Terms Typically Offered: Spring.

VETT 232 Veterinary Dentistry 1 Credit
Introduction to veterinary dentistry as it concerns the veterinary technician. Includes dental morphology, performing a dental exam, identifying common dental problems, equipment used to perform a professional dental cleaning, the proper steps to perform a dental cleaning, and the role of a veterinary technician in client education and preventative home care.
Prerequisites: VETT 134 and VETT 280.
Terms Typically Offered: Spring.
Fees: Yes.

VETT 238 Small Animal Nursing 2 Credits
Presentation of commonly encountered medical and surgical conditions of the dog and cat, with emphasis on the role of the veterinary technician. This course focuses on nursing concepts and specific skills necessary for the profession. Laboratory sessions will provide a hands-on teaching experience.
Prerequisites: VETT 206 and VETT 223.
Corequisites: VETT 225.
Terms Typically Offered: Spring.
Fees: Yes.

VETT 239 Large Animal Nursing 3 Credits
Presentation of commonly encountered medical and surgical conditions of common large animal species, with emphasis on the role of the veterinary technician. This course focuses on nursing concepts and specific skills necessary for the profession. Laboratory sessions will provide a hands-on teaching experience.
Prerequisites: VETT 206/VETT 206L.
Terms Typically Offered: Spring.
Fees: Yes.

VETT 241 Clinical Laboratory Procedures 4 Credits
Biochemical derangements that characterize disease. Topics include: proper collection and analysis of urine, blood, and cytological samples; basic principles of anatomic pathology; necropsy procedure and sample collection.
Prerequisites: VETT 108.
Terms Typically Offered: Fall.
Fees: Yes.

VETT 242 Veterinary Critical Care 2 Credits
Instruction in appropriate nursing assessment, monitoring, and intervention for emergencies. Considers overall anatomy, physiology, and disease or accident processes to assist in veterinary diagnoses and treatment.
Prerequisites: VETT 206, VETT 223, and VETT 224.
Terms Typically Offered: Spring.
Fees: Yes.

VETT 243 Veterinary Diagnostic Microbiology 3 Credits
Introduction to the biology, clinical appearance, and laboratory diagnosis of bacterial and viral diseases of veterinary and zoonotic importance.
Prerequisites: VETT 224 and VETT 241.
Terms Typically Offered: Summer.
Fees: Yes.

VETT 250 Clinical Competency Evaluation 1 Credit
Evaluation of clinical skills and knowledge in preparation for final cumulative clinical practice. Includes selected clinical laboratory techniques (parasitology, hematology, urinalysis, cytology, chemistry, serology, microbiology); diagnostic imaging; office procedures; surgical preparation, instrumentation, and assistance; anesthesia induction, maintenance, and monitoring; restraint and handling techniques; small, large, and laboratory animal diagnostic and therapeutic techniques; and pharmacology calculations, labeling, and drug classification.
Prerequisites: VETT 281.
Terms Typically Offered: Spring.

VETT 275 Specialty Rotation 2 Credits
Introduction to specialties through site visits and/or on-campus training days delivered by industry professionals and veterinary specialists. Focus on experiential learning opportunities and exposure to specialties such as: dentistry, anesthesia/analgesia, internal medicine, emergency and critical care, surgery, equine, zoology, behavior, clinical practice, nutrition, clinical pathology, dermatology, ophthalmology, and alternative veterinary medicine.
Prerequisites: VETT 281.
Terms Typically Offered: Spring.
Fees: Yes.

VETT 280 Diagnostic Imaging Clinical 1 Credit
Focus on the use of radiographic equipment, safety, positioning of animals for radiographs, developing a technique chart, and producing diagnostic radiographic and non-radiographic images.
Prerequisites: VETT 102 and VETT 116.
Corequisites: VETT 134.
Terms Typically Offered: Summer.
Fees: Yes.

VETT 281 Clinical I 2 Credits
Opportunity to supplement coursework with practical work experience related to the educational program. Students work under the immediate supervision of experienced personnel at the business location and with the direct guidance of the instructor/coordinator.
Prerequisites: VETT 172.
Terms Typically Offered: Fall.
Fees: Yes.

VETT 282 Clinical II 3 Credits
Continued opportunity to supplement coursework with practical work experience related to the educational program. Students work under the immediate supervision of experienced personnel at the business location and with the direct guidance of the instructor/coordinator.
Prerequisites: VETT 275.
Terms Typically Offered: Summer.
Fees: Yes.

VETT 285 Veterinary Technician Exam Prep 1 Credit
Preparation for the Veterinary Technician National Exam (VTNE). Includes a comprehensive review of program content and the opportunity to participate in a simulated VTNE.
Prerequisites: VETT 250.
Terms Typically Offered: Summer.
Fees: Yes.

VETT 296 Topics 1-6 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

Viticulture and Enology (VITE)

Courses

VITE 101 Introduction to Wine 3 Credits
Introduction to the world of wine and the process involved in making wine from grape to bottle. Explore the winemaking process and different wine styles.
Terms Typically Offered: Fall.

VITE 105 Agriculture Chemistry 3 Credits
Introduction to the fundamental chemistry needed for the winemaking process. Areas covered are designed to focus on chemical concepts used in problem solving/calculations that a student needs for agriculture-related courses.
Terms Typically Offered: Spring.

VITE 115 Vineyard Establishment and Management 3 Credits
Exploration of the key principles of establishing and managing a vineyard, including site selection, vineyard layout, cultivar selection, soil preparation, planting methods, training, and trellising. Includes canopy management, irrigation, fertilization, pest/disease control, and pesticide application.
Prerequisites: AGRS 100/AGRS 100L.
Corequisites: VITE 115L.
Terms Typically Offered: Spring.

VITE 115L Vineyard Establishment and Management Laboratory 1 Credit
Exploration of the key principles of establishing and managing a vineyard, including site selection, vineyard layout, cultivar selection, soil preparation, planting methods, training, and trellising. Includes canopy management, irrigation, fertilization, pest/disease control, and pesticide application. Lab component required for VITE 115.
Prerequisites: AGRS 100/AGRS 100L.
Corequisites: VITE 115.
Terms Typically Offered: Spring.
Fees: Yes.

VITE 179 Wines, Spirits, and Beers 3 Credits
Production, marketing, and responsible service of wines, spirits, and beers. Exploration of local and regional craft wine, beer, and spirits production, with a focus on evaluation and food and beverage pairings. Certification exam for responsible alcohol service administered.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

VITE 205 Wine Business and Marketing 3 Credits
Exploration of the role of marketing in the wine industry and the process used to make effective business decisions. Includes marketing, three tier system, pricing, advertising, promotion, special events, and packaging specific to the wine industry. Includes visitation to local wineries.
Terms Typically Offered: Spring.

VITE 210 Fermentation Science 3 Credits
Examination of the beneficial and spoilage microorganisms frequently encountered in the winemaking process. Topics include the growth, morphology, metabolism, and identification of these wine microorganisms.
Corequisites: VITE 210L.
Terms Typically Offered: Spring.

VITE 210L Fermentation Science Laboratory 1 Credit
Examination of the beneficial and spoilage microorganisms frequently encountered in the winemaking process. Topics include the growth, morphology, metabolism, and identification of these wine microorganisms. Lab component required for VITE 210.
Corequisites: VITE 210.
Terms Typically Offered: Spring.
Fees: Yes.

VITE 250 Advanced Winemaking I 4 Credits
Advanced winemaking course focusing on pre-fermentation through fermentation. Includes fruit selection, pre-harvest analyses, fruit processing, juice additions, yeast selection, inoculation, alcohol and malolactic fermentation, as well as winery hygiene and safety.
Prerequisites: VITE 101 and VITE 210/VITE 210L.
Terms Typically Offered: Fall.
Fees: Yes.

VITE 255 Viticulture Harvest and Post-Harvest Management 2 Credits
Exploration of late summer/fall vineyard operations, including late-season canopy management, pest & disease identification and control, crop estimation, ripening & maturity sampling, harvest and post-harvest management.
Prerequisites: VITE 115/VITE 115L.
Corequisites: VITE 255L.
Terms Typically Offered: Fall.

VITE 255L Viticulture Harvest and Post-Harvest Management Laboratory 1 Credit
Exploration of late summer/fall vineyard operations, including late-season canopy management, pest & disease identification and control, crop estimation, ripening & maturity sampling, harvest and post-harvest management. Lab component required for VITE 255.
Prerequisites: VITE 115/VITE 115L.
Corequisites: VITE 255.
Terms Typically Offered: Fall.
Fees: Yes.

VITE 260 Science of Winemaking 3 Credits
Introduction to winery laboratory practices, including basic chemistry principles, laboratory techniques, and commonly used analysis methods for musts and wines.
Terms Typically Offered: Spring.
Fees: Yes.

VITE 265 Wines of the World 2 Credits
Introduction to the wine producing regions of the world, including history, viticultural practices, and winemaking styles. Includes wine sensory evaluation of representative wines, basic sensory attributes, palate training and regional food, and wine pairing.
Prerequisites: Must be 18 years of age or older.
Terms Typically Offered: Fall.
Fees: Yes.

VITE 270 Sensory Analysis of Wine 3 Credits
Introduction to sensory analysis specific to wine production, with a focus on taste perception, as well as olfactory and taste transduction mechanisms. The class will focus on differences in specific wine varietals, alcohol fermentation, use of oak in winemaking, malolactic fermentation, wine styles, and individual wine component threshold identification.
Prerequisites: Must be 18 years of age or older.
Terms Typically Offered: Spring.
Fees: Yes.

VITE 280 Advanced Winemaking II 3 Credits
Advanced winemaking course focusing on post-fermentation wine stewardship techniques, including clarification, fining, stabilization, blending, wine composition, and bottling of wines produced from the fall harvest in VITE 250.
Prerequisites: VITE 250.
Terms Typically Offered: Spring.
Fees: Yes.

VITE 295 Independent Study 1-4 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

VITE 299 Winery Internship 3 Credits
Hands-on experience working at a commercial winery for the fall harvest, including grape maturity monitoring, crushing and pressing, fermentation, the handling and storage of new wines, and general cellar practices on a large scale.
Prerequisites: VITE 101 and VITE 210/VITE 210L.
Terms Typically Offered: Fall.

Welding (WELD)

Courses

WELD 110 Shielded Metal Arc Welding 4 Credits
Study and skill development of safe practices, welding theory, and principles of Shielded Metal Arc Welding (SMAW) equipment and process. SMAW fillet welds in all positions on plate.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

WELD 111 Shielded Metal Arc Welding 2 4 Credits
Study and skill development of safe practices, welding theory, and principles of Shielded Metal Arc Welding equipment and process. SMAW groove welds in all positions on plate. Pipe welding and stainless steel plate tests may be included.
Prerequisites: WELD 110.
Terms Typically Offered: Fall, Spring, Summer.
Fees: Yes.

WELD 114 Oxy-Fuel Welding & Brazing 2 Credits
Study and skill development of safe practices, welding theory, and principles of Oxy-Fuel equipment and process. Oxy-Fuel groove and fillet welding and braze welding will be included.
Terms Typically Offered: Fall, Spring, Summer.
Fees: Yes.

WELD 117 Oxy-Fuel and Plasma Arc Cutting 2 Credits
Study and skill development of safe practices, theory, and principles of cutting equipment used in fabrication. Oxy-Acetylene Cutting (OAC), Plasma Arc Cutting (PAC), and other cutting processes applied to sheet metal, plate, piping, and other materials. Other uses of power tools and hand tools to be included.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

WELD 133 Fabrication & Blueprints for Welders 4 Credits
Study and skill development of metal fabrication methods. Measuring tools and techniques, welding shop mathematics, blueprint reading, welding symbols, sheet metal and steel plate fabrication project layout methods applied. Structural and pipe connection layout methods are introduced.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

WELD 151 Introduction to Welding 3 Credits
Introduction to welding. Safe practices, theory, principles, and use of welding and cutting equipment. Oxy/Fuel, Plasma Arc Cutting, Shielded Metal Arc Welding, Gas Metal Arc Welding, Flux Cored Arc Welding with sheet metal and carbon steel plate in most positions. Gas Tungsten Arc Welding may be included.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

WELD 195 Independent Study 1-4 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

WELD 196 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

WELD 201 Gas Metal Arc Welding 4 Credits
Study and skill development of safe practices, welding theory, and principles of Gas Metal Arc Welding (GMAW) equipment and process. GMAW fillet and groove welds with short circuit transfer and axial spray transfer will be included. GMAW pulse, aluminum, and stainless steel may be included.
Terms Typically Offered: Fall, Spring.
Fees: Yes.

WELD 203 Flux Cored Arc Welding 4 Credits
Study and skill development of safe practices, welding theory, and principles of Flux Cored Arc Welding (FCAW) equipment and process. FCAW fillet and groove welds with self-shielded and gas-shielded processes will be covered.
Terms Typically Offered: Fall, Spring, Summer.
Fees: Yes.

WELD 230 Gas Tungsten Arc Welding 4 Credits
Study and skill development of Gas Tungsten Arc Welding (GTAW/TIG). Lecture and laboratory. Safe practices, theory, principles and use of GTAW equipment. GTAW with sheet metal and carbon steel plate in most positions. Also, GTAW stainless steel and aluminum sheet metal in most positions. A.W.S. testing.
Fees: Yes.

WELD 240 Pipe Welding 4 Credits
Study and skill development of safe practices, welding theory, and principles of pipe welding using SMAW, GMAW, FCAW, and GTAW processes. AWS, API, and ASME weld procedures will be examined.
Prerequisites: WELD 111, WELD 203, and WELD 230.
Terms Typically Offered: Fall.
Fees: Yes.

WELD 261 Testing and Inspection 3 Credits
Advanced classroom course on testing and weld inspection. Destructive and non-destructive weld testing methods applied. AWS bridge and structural codes, API cross country pipe welding codes, ASME pressure vessel and pressure piping codes. (On demand)

WELD 270 Practical Applications 3 Credits
Exploration of a welding project course. Classroom discussions and directions with laboratory objectives. This class gives welding students the opportunity to apply techniques and knowledge gained from previous welding courses. With the guidance and advice of the instructor, students will fabricate a welding project of their choice.
Fees: Yes.

WELD 275 Automation 4 Credits
Study and skill development of safe practices, welding theory, and principles of robotic welding and Computer Numerical Control (CNC) plasma cutting equipment and processes. Basic programming, setup, and systems integration will be included and may include other automated equipment and processes.
Prerequisites: WELD 117 and WELD 201.
Terms Typically Offered: Fall, Spring, Summer.
Fees: Yes.

WELD 295 Independent Study 1-4 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

WELD 296 Topics: 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

WELD 299 Internship 1-14 Credits
Course may be taken multiple times up to maximum of 6 credit hours.

Wildland Fire Management (FSWM)

Courses

FSWM 100 Introduction to Wildland Fire Basic Fire Guard School 5 Credits
Instruction in the primary environmental factors that affect the start and spread of wildfire and recognition of potentially hazardous situations. This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training classes: S-110, S-130, S-190, I-100, L-180, and FEMA IS-700.
Terms Typically Offered: Fall.
Fees: Yes.

FSWM 103 Expanded Dispatch Recorder 1 Credit
Structure of an expanded dispatch organization and how to effectively perform within that organization. Students will develop a working knowledge of the purpose and process of completing the resource order and other dispatch forms and learn established dispatch procedures. This course consists of the curriculum and activities included in the National Wildfire Group Firefighting Training classes: D-110.
Terms Typically Offered: Summer.
Fees: Yes.

FSWM 141 Introduction to Incident Information 2 Credits
Cognitive material and skills needed to become type 3 information officers (IOF3). The course covers all aspects of establishing and maintaining an incident information operation, communicating with internal and external audiences to handling special situations. This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training program class S-203.
Terms Typically Offered: Spring.

FSWM 142 Portable Pumps and Water Use 2 Credits
Introduction to the three areas of supply, delivery, and application of water. Students will be required to demonstrate their knowledge of correct water use, basic hydraulics, and equipment care. Modules support required set up, operation, and maintenance of pump equipment. This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training classes: S-211.
Terms Typically Offered: Spring.
Fees: Yes.

FSWM 143 Wildfire Chainsaws 3 Credits
Introduction to the function, maintenance, and use of internal combustion, engine-powered chainsaws and their tactical wildland fire applications. Modules support entry-level training for firefighters with little or no previous experience in chainsaw operation and provides hands-on cutting in situations similar to firelines. Course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training class: S-212.
Terms Typically Offered: Fall.
Fees: Yes.

FSWM 144 Fire Operations in the Wildland/Urban Interface 2 Credits
Introduction to tactical decisions made by structure and wildland firefighters when confronting fire in the wildland/urban interface. Instructional units include interface awareness, size up, strategies, structure triage and protection tactics. Course curricula involve incident action plan assessments, public relations, and firefighter safety. Course meets objectives identified in the National Wildfire Coordinating Group Training Class S-215.
Terms Typically Offered: Spring.
Fees: Yes.

FSWM 147 Ignition Operations 2 Credits
Training in the functional roles and responsibilities connected with firing operations. The course covers planning, ignition procedures and techniques, and equipment applicable to wildland and prescribed fire operations. This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training class: S-234.
Terms Typically Offered: Spring.
Fees: Yes.

FSWM 149 Interagency Incident Business Operations 1 Credit
Training needs of all positions involving interagency incident business management. Provides basic policy and direction for incident business management. Consists of curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training class: S-260.
Terms Typically Offered: Fall.
Fees: Yes.

FSWM 151 Basic Air Operations 1 Credit
Introduction to aircraft types and capabilities, aviation management, safety for flying in and working with agency aircraft, tactical and logistical uses of aircraft, and requirements for helicopter take-off and landing areas. This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training class: S-270.
Terms Typically Offered: Fall.

FSWM 152 Helicopter Crew Member 2 Credits
Proficiency in all areas of the use of helicopters associated with wildland fire operations. Aviation topics include: safety, life support equipment, mishap reporting, pre-flight checklist, aircraft capabilities and limitations, transportation of hazardous materials, and crash survival. This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training program class S-271.
Terms Typically Offered: Summer.
Fees: Yes.

FSWM 153 Intermediate Wildland Fire Behavior 2 Credits
Preparation for prospective supervisors to undertake safe and effective fire management operations. This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training class: S-290.
Terms Typically Offered: Fall.
Fees: Yes.

FSWM 154 Wildland Fire Origin & Cause Determination 2 Credits
Knowledge and skills for the Wildland Fire Origin and Cause Determination Investigator (INVF). Concepts will help an INVF perform at a nationally acceptable level without regard to geographic boundaries. Course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training program class FI-210.
Terms Typically Offered: Fall.

FSWM 155 Initial Attack Incident Commander/Basic Incident Command System 3 Credits
Required training for an ICT4 qualification. Course topics include Incident Command organization, functions and responsibilities, readiness, mobilization, size-up, planning, resource ordering, deployment, objectives, strategy, tactics, containment, administrative responsibilities, and post-incident evaluation. This course consists of the curriculum in the National Wildfire Coordinating Group Firefighting Training classes S-200 and I-200.
Terms Typically Offered: Spring.
Fees: Yes.

FSWM 156 Firefighter Type 1 and Fire Line Leadership 3 Credits
Required training for Firefighter Type 1 qualification. Topics include fireline reference materials, communications, tactical decision making, leadership values and principles, transition challenges for new leaders, situational leadership, team cohesion factors, and ethical decision making. This course consists of the curriculum in the National Wildfire Coordination Group S-131 and L-280 courses.
Terms Typically Offered: Fall.
Fees: Yes.

FSWM 162 Advanced Firefighter Position Task Book 3 Credits
Documentation processes for the recording of routine and special activities in the field. This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training program to include not less than 135 hours of documented activities.
Terms Typically Offered: Summer.
Fees: Yes.

FSWM 196 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

FSWM 200 Extended Attack Incident Commander 1 Credit
Training needs of the incident commander type 3 (CT3). The six instructional units cover information gathering, planning, supporting organization, operations, transitioning, and demobilization/administrative requirement. This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training program class S-300.
Terms Typically Offered: Summer.

FSWM 243 Fire Engine Operator 3 Credits
Performance proficiency in the duties associated with engine boss, single resource (ENGB) to include: engine crew capabilities and limitations, information sources, fire size up considerations, tactics and wildland-urban interface. This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training classes: S-231.
Prerequisites: FSWM 100 and FSWM 156.
Terms Typically Offered: Fall.
Fees: Yes.

FSWM 244 Wildland Training for Structural Fire Fighters 2 Credits
Preparation for the training requirements outlined in the Wildland Fire Qualification System Guide and the Positions Task Books (PTB). Course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training program class S-330.
Prerequisites: FSWM 100.
Terms Typically Offered: Fall.

FSWM 278 Supervised Work Experience 1-3 Credits
Practical experience at an advanced level, demonstrating proficiency in wildland fire management tasks and assignments. Students will work under the immediate supervision of experienced field personnel with the direct guidance of the coordinator. Students will work on actual wildland fires, at stations and fire project/resource management sites related to their career fields. Includes travel to wildland fire locations.
Prerequisites: FSWM 100.
Terms Typically Offered: Fall, Summer.

FSWM 296 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

FSWM 299 Internship 1-3 Credits
Supplemental course work with practical hands-on work experience related to wildland fire management. Students will work under the immediate supervision of an industry professional at a selected agency location. Students will work on actual wildland fires, at stations and fire project/resource management sites related to their career fields. Includes travel to wildland fire locations.
Prerequisites: FSWM 100.
Terms Typically Offered: Fall, Spring, Summer.
Course may be taken multiple times up to maximum of 6 credit hours.

GLOSSARY OF TERMS

Academic Probation

The failure of a student to meet the standards required for good standing. Undergraduate students will be placed on academic probation for one semester and must maintain a 2.00 GPA or higher to avoid academic suspension.

Academic Renewal

Following an absence from the college of at least five years, an undergraduate student may apply for "academic renewal." If approved, none of the course credits and grades earned at Colorado Mesa University prior to the five-year minimum absence will be used for meeting graduation requirements or in determining the student's grade point average. However, the prior courses and their grades will remain on the student's transcript even though they will not be used in meeting graduation requirements and in calculating the student's grade point average.

Academic Residency

A specified minimum number of credit hours that must be earned at Colorado Mesa University to receive a degree.

Academic Suspension

Denial of all registration privileges for a specified period of time (minimum one full semester) because of failure to meet minimum academic standards. Suspended students must be readmitted to the college before continuing enrollment.

Academic Term

A period of instruction. During the fall and spring, the term is a standard 15-week semester. During the summer, various length periods of instruction are offered. The term regular semester refers to fall or spring semester.

Academic Year

The traditional cycle of academic terms: fall and spring.

Accreditation

Certification that the university or program has met established standards and is recognized by appropriate accrediting agencies.

Add/Drop

A period of time when students can alter class schedules by adding or dropping classes or changing sections of a course. Add/drop deadlines are published on the Registrar's Office Important Dates website.

Admitted

Status of students who have applied and have been accepted to the university.

Associate's Degree

Degree awarded upon satisfactory completion of a prescribed, planned program of approximately 60 credit hours. This can be completed in two years of study with an average of 15 semester hours per semester in the fall and spring terms.

Audit

A registration status which allows a student to attend and to participate in a class without benefit of a grade or academic credit. The "audit" status must be recorded in the Registrar's Office before the withdraw deadline for the class.

Baccalaureate Degree

Bachelor's degree: the traditional undergraduate degree. Awarded for completion of an undergraduate program of study, usually of 120 semester hours. This can be completed in four years of study with an average of 15 semester hours per semester in the fall and spring terms. Bachelor's degrees are comprised of essential learning courses, a major, and elective courses.

Capstone

A course, project, paper, presentation, event, or exhibit that must be completed, usually in the senior year, before graduation. A capstone demonstrates in an integrated way everything that has been learned while pursuing a particular major.

College Opportunity Fund (COF)

The method of funding state tax dollar support for students enrolled in Colorado public higher education via a voucher. Implemented in fall 2005, qualifying students create an account at the College Access Network into which the voucher is deposited and, upon registration by the student at a participating institution, then is transferred to the college.

Concentration

An area of interest within a major that is defined by a group of courses. Number of hours will vary by major. Concentrations are generally associated with 4 year programs (BA, BBA, BS, etc).

Concurrent Student

A high school student who is registered for one or more university classes.

Contact Hours

The number of weekly hours student meets in a class, lab, studio, clinical, or class/lab.

Corequisite

Course(s) that must be taken concurrently with one or more additional courses. Subject matter often is similar or complementary.

Course Levels

The numbering system of courses:

Category	Numbering System
Developmental/Preparatory	099 and lower
Lower Division	100 - 199 Freshman
	200 - 299 Sophomore
Upper Division	300 - 399 Junior

	400 - 499 Senior
Graduate	500 and above

Course Load

The total number of semester hours registered for in a given academic term.

Cumulative Grade Point Average

An average GPA calculated by dividing the total number of quality points/grade points obtained (credit hours X grade points) by the number of credit hours attempted during all academic sessions at Colorado Mesa University. Grades from other institutions are not included in the calculation.

Dean's List

Recognition of undergraduate students who achieve a grade point average of between 3.50 and 3.99 while enrolled for a minimum of 12 semester hours in a fall or spring semester.

Degree

A title which the university confers on a student who has satisfactorily completed a required course of study. Degree requirements are established by the university and departments, and are approved by the university's faculty, administration, and authorized by the Colorado Commission on Higher Education. The university offers degrees at three levels: associate, baccalaureate, and graduate.

Degree Category

One of three undergraduate degree categories offered at Colorado Mesa University that may differ in lower division requirements beyond essential learning . These categories include the Bachelor of Arts (BA), Bachelor of Science (BS) and Professional, Technical or Other Programs (PTO).

Discipline

A recognized subject area or field of study within which courses are structured.

Distance Learning

Courses offered for credit by an alternative means of delivery other than in-person (e.g. videoconference or online).

Double Major

Completing the requirements of more than one major within the same degree designation (e.g., a Bachelor of Arts, Bachelor of Science, Bachelor of Business Administration). A student could earn one baccalaureate degree with multiple majors (e.g., Bachelor of Arts with a double major in Psychology and Sociology). Students must meet all the requirements for the degree and for each major.

Dual/Double Baccalaureate Degree

Completing the requirements of more than one major with different degree designations (e.g., a Bachelor of Arts, Bachelor of Science, Bachelor of Business Administration). A student earning two baccalaureate degrees (e.g., Bachelor of Arts in History and a Bachelor of Science in Mathematics) must meet all the requirements for each degree, each major, and additional requirements found in the Requirements for Undergraduate Degrees (p. 73) under the "Second Baccalaureate Degree".

Earned Hours

Credit hours earned for college-level courses (numbered 100 and above) with a passing grade.

Electives

Courses selected at a student's discretion. Electives may be partially restricted, such as a selection from a specified group of courses identified to fulfill a particular requirement or they may be "free" electives which may be selected from any course for which the student has proper prerequisites. Electives provide opportunities for students to pursue personal interest and to gain general knowledge.

Emphasis

An area of interest within a major that is defined by a group of courses. Number of hours will vary by major. Emphases are generally associated with 2-year programs (AA, AS, etc.).

Enrollment

Registration for course work and payment of fees constitutes official enrollment. For financial aid purposes, a undergraduate student must enroll for 12 credit hours to be classified full-time; for other purposes, the minimum may be higher. For graduate students, a six-hour load is typical for full-time classification.

Essential Learning

A university-wide requirement of basic courses that form the foundation of all undergraduate degree programs. CMU's Essential Learning requirement was formerly named General Education.

Essential Learning Capstone

The baccalaureate 4 semester credit hour graduation requirement consisting of corequisite courses Maverick Milestone (3 hours) and Essential Speech (1 hour). This interdisciplinary requirement is designed to allow students to transition between the lower division Essential Learning Core courses and their upper-division major courses. Must be completed in the time frame of 45 and 75 earned credit hours.

Essential Learning Core

Basic courses providing undergraduate students with a foundation in the arts and sciences. The Essential Learning Core consists of 31 semester credit hours across the following disciplines: English (6 hours), Mathematics (3 hours), History (3 hours), Humanities (3 hours), Social and Behavioral Sciences (6 hours), Fine Arts (3 hours), and Natural Sciences (7 hours).

Essential Speech

A 200-level, 1 semester credit hour course which provides students with the tools for verbally presenting ideas and information learned in the corequisite Maverick Milestone course. The Maverick Milestone and Essential Speech corequisite courses comprise the Essential Learning Capstone requirement for baccalaureate students. See Essential Learning.

General Education

Former designation of CMU's Essential Learning curriculum.

General Educational Development (GED) Diploma

Award granted upon passing tests that measure student learning normally acquired by completing a typical high school program of study.

Good Standing

A sliding scale of academic status achieved by students for semester hours attempted. Determines eligibility of students to continue to register for university course work.

Grade Improvement

Repeat of any course more than once for academic credit at Colorado Mesa University done so only for "grade improvement." Academic credit is awarded only once and the best grade received is the one used to compute the student's cumulative grade point average and to fulfill requirements for the degree. Some exceptions to this policy apply.

Grade Point Average (GPA)

A measure of a student's academic performance which is computed by dividing credit hours attempted into grade points earned to determine the mean average grade of all courses taken for credit. Does not include courses taken as pass/fail.

Graduate Certificates

Contain graduate level (5xx-7xx) courses. A student must be admitted as a graduate student to attempt a graduate certificate.

Graduate Student

A student who has earned a baccalaureate degree and who is pursuing a graduate certificate, master's, or doctoral degree program.

Graduation Honors

Recognition of graduating undergraduate students who meet the following academic criteria:

- With Distinction - Technical/Professional certificate graduates and Associate degree graduates with cumulative grade point averages of 3.50 to 3.74.
- With High Distinction - Technical/Professional certificate graduates and Associate degree graduates with cumulative grade point averages of 3.75 to 4.00.
- Cum Laude - Baccalaureate degree graduates with cumulative grade point averages of 3.50 to 3.74.
- Magna Cum Laude - Baccalaureate degree graduates with cumulative grade point averages of 3.75 to 3.89.
- Summa Cum Laude - Baccalaureate degree graduates with cumulative grade point averages of 3.90 to 4.00.

Higher Education Admission Requirements (HEAR)

(also referred to as the pre-collegiate curriculum)

Requirements established by the Colorado Commission on Higher Education for students graduating from high school in spring 2008 or later and seeking admission to a Colorado public four-year college or university.

Independent Study

An upper-division course designated by a special number within a discipline. Allows a student to pursue an individual project independently, for credit, under the supervision of an instructor. Requires consent of the instructor.

Leveling Courses

A set of equivalent courses for graduate students who have not completed specific undergraduate courses prior to beginning graduate study.

Lower Division Course

A course that carries a 100 - 199 or 200 - 299 number.

Major

A set of required courses from one or more departments in a subject chosen as the undergraduate student's principal field of study. Designed to provide students with the knowledge, skills, and experiences necessary to pursue a specific career and/or advanced study.

Master's Degree

A post-baccalaureate degree. All master's degree candidates must maintain a 3.00 GPA to remain in good academic standing.

Matriculation

Enrollment as an admitted, degree-seeking student.

Maverick Milestone

A 200-level interdisciplinary, topics-oriented, writing-intensive course designed to help students develop the ability to approach problems and evaluate ideas using more than one set of intellectual tools. This 3 semester credit hour course and its 1 semester credit hour corequisite Essential Speech comprise the Essential Learning Capstone requirement for baccalaureate students. See Essential Learning.

Minor

An officially-recognized secondary field of study requiring fewer units than the major. A minor must be in an approved subject area and is less comprehensive than the major.

Multiple Concentrations

Completing the requirements of more than one concentration within the same major (e.g., Bachelor of Science in Mathematics with a double concentration in Applied Mathematics and Statistics). Students must meet all the requirements for the degree, major, and each concentration.

Prerequisite

Requirement(s) that must be taken and passed before a higher level course may be taken. Sometimes, permission of the instructor or another requirement (such as graduate status) may be a prerequisite for a course. Prerequisites may include: (1) Course or courses that must be completed before a higher-level course may be taken, sometimes allowed by the instructor to be taken concurrently; (2) Courses outside the major department that must be completed before admission to the major; (3) Successful completion of high school courses (as in languages); (4) Minimum SAT or ACT scores or sub-scores; (5) Minimum placement

test scores; or (6) Acceptance into a certain program. Unless otherwise specified, the minimum passing grade for all prerequisite courses is a C.

President's List

Recognition of undergraduate students who achieve a grade point average of 4.00 while enrolled for a minimum of 12 semester hours in a fall or spring semester.

Priority Registration

Designated period of early registration for currently enrolled students.

Professional Certificate

A Professional Certificate contains primarily upper division (3xx-4xx) courses. For a student to attempt a Professional Certificate after the student has earned a baccalaureate degree, the student must be admitted to study as a post-baccalaureate student or as a graduate student.

Program Requirements

The list of requirements a student must satisfy in order to graduate with a specified degree or certificate program. Program requirements for each program can be located via the Programs A-Z page (p. 832).

Quality Points

The number points attributed to a grade (A=4, B=3, C=2, etc.) times the number of credit hours in the course.

Registrar

Office responsible for course registration, transfer credit evaluation, maintaining academic records, and certifying degree requirements for graduation.

Student Classification

Student level based on the number of semester hours successfully completed as follows:

Semester Hours Completed	Student Status
0 - 30	Freshman
31 - 60	Sophomore
61 - 90	Junior
91 - above	Senior

Technical Certificate

Award for the completion of technical coursework designed to train students for specific skills required for employment in various vocational occupations.

Topics Courses

Courses offered from time to time that contain material of special interest within a specific discipline not considered elsewhere in the curriculum. Prerequisites vary with course material and may require consent of the instructor.

Transcript

An official document issued by the Registrar that lists the entire academic record of a student at the university.

Transfer Credit

Course work completed at another institution that is accepted for credit toward a degree at the university. Grades from these courses are not included in calculation of a student's cumulative GPA.

Undergraduate

A student working toward a technical certificate, professional certificate, associate degree, or baccalaureate degree.

Upper Level Course

A course that carries a 300 - 399 or 400 - 499 number.

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