



**COLORADO MESA**  
UNIVERSITY



# CATALOG

2022 – 2023

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# COLORADO MESA UNIVERSITY CATALOG, 2022-2023

## How to Use This Catalog

Use the top catalog menu bar, left navigation menu, or the search catalog option to find information in this catalog. Users may print or save a PDF of sections of the catalog or the catalog in its entirety using the Print Options feature at the bottom of the left navigation menu.

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. 93) 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. 742) section or link to a program listed in the chosen discipline(s) in [Areas of Study](#) (p. 93) 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. 759) 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. 72).
4. Finally, once programs of interest have been selected, see [Undergraduate Admission Information](#) (p. 30) or [Graduate Information and Programs](#) (p. 79) to learn more about the application process and requirements; [Tuition, Fees, Residence Life and Student Accounts](#) (p. 42) and [Scholarships and Financial Aid](#) (p. 39) to learn more about tuition, expenses, financial aid, and housing; and [Academic and Student Services, Offices and Activities](#) (p. 49) 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. 49) 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. 742) and track progress in DegreeWorks).
- Review courses, both required and elective, in [Course Descriptions](#) (p. 759).

- Review degree requirements and essential learning courses under the requirements applicable to the selected [Undergraduate](#) (p. 68) or [Graduate](#) (p. 79) 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 and in the [Two-Year Course Planning Calendar/Matrix](#).

## Contact Information

1100 North Avenue  
Grand Junction  
Colorado 81501-3122  
970.248.1020 • 800.982.6372  
[coloradomesa.edu](http://coloradomesa.edu)

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](#).

# ABOUT COLORADO MESA UNIVERSITY

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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)
- 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)
- 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)

**Byron Evers**, BS, MS, Associate Professor of Mass Communication (2013)

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

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

**Andrew Gordon**, BA, MA, PhD, Professor of Spanish (2012)

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

**Daniel Flenniken**, Associate Professor of Mass Communication (2017)

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

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

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

**Longino Luis Lopez**, BA, MA, PhD, Instructor of English (2012)

**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)

**Jerry Moorman**, BS, MEd, EdD, Professor of Business (2013)

**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)

**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)

**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)

**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)

## Colorado Mesa University Visiting Professors

### Aspinal Professors

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

**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.Litt; 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 Reserve 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

**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 Western Colorado Community College. 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 Adams** (2017), Assistant Professor of Construction Management; BS, University of Georgia-Athens; MS, Kennesaw State University; MBA, Kennesaw State University; PhD, Texas State University

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

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

**Brent Alumbaugh** (2019), Instructor of Kinesiology; BA, Colorado Mesa University; MS, University of New Mexico

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

**Jason Andrews** (2017), Assistant Professor of Speech; 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

**April Arnhold** (2022), Instructor of Nursing;

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

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

## B

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

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

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

**Carlos Baldo** (2017), Associate Professor of Business Management, Interim Department Head of Business; BBA, Universidad Fermin Toro; MBA, Lynn University; MS, Universidad Pablo de Olavide; PhD, Universidad Pablo de Olavide

**Jenne Baldwin-Eaton** (2016), Technical Instructor Viticulture and Enology; BS, California State University-Chico

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

**Nicholas Bardo** (2018), Assistant Professor 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), Professor of Computer Science; BS, Colorado Mesa University; MS, New Mexico Institute of Mining and Technology; PhD, New Mexico Institute of Mining and Technology

**Susan Becker** (1996), Professor of Psychology; BA, Reed College; MA, University of Colorado-Colorado Springs; PhD, University of Arizona

**Margot Beckett** (2005), Associate Professor 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

**Amanda Benzin** (2017), Assistant Professor of Dance; BFA, State University of New York-Buffalo; MFA, University of Colorado-Boulder

**Laura Berg** (2021), Assistant Professor of Theatre; BA, Baldwin Wallace University; MFA, DePaul University

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

**Ana Berrizbeitia** (2018), Assistant Professor of Mathematics; BS, University of Texas-Austin; Graduate Certificate, University of Iowa; MA, University of Texas-Austin; PhD, University of Iowa

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

**Scott Bevill** (2010), Associate Professor of Mechanical Engineering; BS, University of Denver; MS, Stanford University; PhD, Stanford University

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

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

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

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

**Amy Bronson** (2017), Associate Professor, Physician Assistant Program Director; BA, Metropolitan State University of Denver; MMS, St. Francis University; EdD, Bethel University

**Holly Buglewicz** (2016), Instructor of Speech; BS, University of Nebraska; BA, University of Nebraska; MA, University of Nebraska

**Lori Burns** (2021), Technical Instructor of Veterinary Technology; AAS, Bel-Rea Institute

**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

**Ruiying Cai** (2018), Assistant Professor of Hospitality Management; BA, Xiamen University; MS, Oklahoma State University; PhD, Washington State University

**Dale Call** (2015), Instructor of Biology; MD, University of Maryland-College Park

**Robin Calland** (2009), Associate Professor of English; BA, University of Colorado-Denver; MA, University of Colorado-Boulder; PhD, University of Colorado-Boulder

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

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

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

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

**Michael Carlton** (2012), Technical Instructor 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

**Christopher Carter** (2021), Instructor of Chemistry; BS, Colorado Mesa University

**Terence Casey** (1996), Professor of Political Science; BS, Northern Arizona University; MA, University of San Francisco; PhD, Arizona State University

**Paula Casey** (1998), Instructor of Speech; BS, Northern Arizona University; MA, Northern Arizona University

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

**Deartha Chambers** (2017), Instructor of Speech; AS, Ivy Tech Community College; BS, Ball State University; MA, Ball 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; EdD, 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** (2015), Instructor of Nursing; AS, Washburn University; BSN, Washburn University; MSN, Walden University

**Christopher CoHu** (2020), Instructor of Environmental Science and Technology; BA, Western Colorado University; PhD, Colorado State University

**David Collins** (2006), 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), Assistant 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

**Blake Crossley** (2007), Instructor of Spanish; BA, Brigham Young University; MA, Brigham Young University

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

**Tracy Cyr** (2013), Instructor of Biology; BS, University of California-Riverside; MS, Washington State University; PhD, University of Missouri-Columbia

## D

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

**Michael Delaney** (2008), Professor of Criminal Justice; BA, Transylvania University; JD, Salmon P. Chase College of Law; PhD, University of Cincinnati

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

**Erin Donovan** (2018), Assistant 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), Associate Professor of Mathematics, Department Head of Mathematics and Statistics; BS, Central Michigan University; PhD, Purdue University

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

**Lynn Duncan** (2010), Associate Professor of Nursing; BSN, South Dakota State University; MSN, Colorado Mesa University

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

## E

**Eric Elliott** (2015), Associate Professor of Art, Department Head of Art and Design; 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

**Megan Englund** (2016), Technical Instructor of Marketing Education; BBA, Colorado Mesa University; MBA, Colorado Mesa University

**Juliet Evans** (2012), Instructor of Nursing; AAS, Central Oregon Community College; BSN, Colorado Mesa University; MSN, Colorado Mesa University

## F

**Cathleen Farrell** (2017), Instructor of Mathematics; BS, Florida Atlantic University; MS, Florida Atlantic University; MS, University of Florida

**Cathy Feller** (2007), Associate Professor of Nursing; BA, Brandeis University; BSN, University of Maine; MSN, Walden University

**Cassandra Fenton** (2016), Assistant Professor of Geology; BS, University of Rochester; MS, University of Salzburg; MS, University of Utah; PhD, University of Utah

**Carolyn Ferreira-Lillo** (2009), Assistant Technical Professor of Process Control Technology; AAS, Queensborough Community College; BS, The City College of New York; MS, Stony Brook University

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

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

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

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

**Theresa Friedman** (2002), Professor of Mathematics; BS, Saint Joseph's University-Philadelphia; MS, Lehigh University; PhD, Lehigh University

**Lisa Friel-Redifer** (1998), Professor of Teacher Education; BA, University of California-Santa Barbara; MEd, Northern Arizona University; EdD, Northern Arizona University

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

## G

**Teresa Garner** (1994), 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

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

**Susan Goebel** (1998), Associate Professor of Nursing; BSN, University of North Dakota; MS, University of North Dakota

**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

**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

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

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

**Carmine Grieco** (2015), Assistant Professor of Kinesiology; BS, University of Wyoming; MS, Old Dominion University; PhD, Old Dominion University

**Olga Grisak** (2013), Associate Professor of Radiologic Science; AAS, Colorado Mesa University; BS, State University Lvivska Politekhnik; MS, State University Lvivska Politekhnik

**Geoffrey Gurka** (2001), Professor of Accounting; BA, University of Connecticut; MA, Florida State University; PhD, Michigan State University

**Damion Gustafson** (2014), Technical Instructor of Welding Tech; AAS, Colorado Mesa University

**Philip Gustafson** (1998), Professor of Mathematics; BS, State University of New York-Oneonta; MS, Washington State University; PhD, Washington State University

## H

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

**Eli Hall** (2012), Associate Professor of Art; 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

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

**Jennifer Hancock** (2008), Associate Professor of English; BA, Oklahoma State University; MFA, Sarah Lawrence College; PhD, Oklahoma State University

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

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



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

**Jesse Harmon** (2019), Technical Instructor of Construction Electrical;

**Tim Hatten** (1995), Professor of Business; BA, Western State College; MS, Central Missouri State University; PhD, University of Missouri

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

**Deborah Henderson** (2014), Technical Instructor of Baking and Pastry; AA, Mesa Junior College

**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; 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** (2022), Assistant Professor, Director of Physical Therapy Clinical Education; BS, Whittier College; DPT, Temple University

**Chelsie Hess** (2016), Associate Professor of Psychology; BA, University of Wyoming; MA, University of Northern Colorado; PhD, University of Northern Colorado

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

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

**Denise Hocter** (2012), Instructor of Teacher Education; BS, Eastern Michigan University; MA, Western State College

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

**Pamela Holder** (2014), Technical Instructor, Emergency Medical Services Program Director; BS, Colorado Christian University

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

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

## I

**Aaron Inouye** (2022), Assistant Professor of Physician Assistant Studies; BA, Miami University; MS, Pacific University

## J

**Erika Jackson** (2010), Professor of History; BA, Michigan State University; MA, Loyola University; PhD, Michigan State University

**Eliot Jennings** (2013), Associate Professor of Public Administration; BS, University of North Texas; MPA, University of North Texas; PhD, University of North Texas

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

**Verner Johnson** (1985), Professor of Geology; BA, Southern Illinois University; MS, Southern Illinois University; PhD, University of Tennessee

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

**Kristen Jones** (2011), Associate Professor of Psychology; BA, Emory & Henry College; MS, Radford University; PhD, Ball State University

**Labecca Jones** (2013), Instructor of English; BA, Colorado Mesa University; MFA, Oklahoma State University

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

**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; BA, Eastern Washington University; 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), Instructor of Radiologic Science; AAS, Colorado Mesa University; BS, Southern New Hampshire University

**Maren Kempton** (2019), Assistant Technical Professor of Agriculture; BS, Colorado State 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

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

**Youngmin Kim** (2019), Assistant Professor of Physics; BS, Pacific Union College; MS, University of Paderborn; PhD, University of Paderborn

**James King** (2017), Assistant Professor of Statistics; BA, Austin College; MS, Texas A&M University; MS, Baylor University; PhD, Baylor University

**Michelle King** (2021), Assistant Professor, Program Director of Social Work; BA, Austin College; MSW, 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

**Adam Kluck** (2018), Assistant Professor of Music; BME, University of Northern Colorado; MM, University of Northern Colorado; DMA, University of Wisconsin

**Susan Konantz** (2015), Technical Instructor of Developmental Education-English; BA, University of Oregon; MA, National University; EdD, Walden University

**Amy Kornkven** (2018), Biology Lab Instructor; BS, University of Wisconsin; PhD, University of Oklahoma

**Tiffany Kragnes** (2020), Assistant Professor of Criminal Justice; BA, Iowa State University; MPA, Upper Iowa University; JD, Drake University; PhD, Walden University

**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

## L

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

**Eric Lackey** (2016), Instructor of English; BA, University of Kansas; MA, University of Kansas; MFA, University of Texas

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

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

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

**Amanda Lavelle** (2018), Assistant Professor of Biology; BS, University of California; PhD, University of California

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

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

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

**Steven Liff** (2015), Instructor of Business; AAS, Colorado Mesa University; BS, Colorado State University-Pueblo; MS, Colorado State University

**Richard Livaccari** (1997), Professor of Geology; BS, University of New Mexico; MS, State University of New York-Albany; PhD, University of New Mexico

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

## M

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

**Mae MacIntire** (2019), Instructor of Psychology; BA, University of Cincinnati; MS, Springfield College; PhD, University of North Texas

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

**Kathleen 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

**Britt Mathwich** (2011), Associate Professor of Business; BA, University of New Mexico; MA, Eastern New Mexico University

**Tracy Matthews** (2012), Instructor, Program Director Medical Lab Technology; BS, University of Arkansas for Medical Sciences; MS, University of North Dakota

**Amy Maurer** (2021), Assistant Professor of Chemistry; BS, Colorado Mesa University; PhD, Colorado School of Mines

**Daniel McClintock** (2007), Technical Instructor of Digital Filmmaking; BA, Colorado Mesa University

**Christopher McCoy** (2019), Technical Instructor of Fire Science; AAS, Laramie County Community College; BS, Columbia Southern University

**Max McFarland** (2010), Instructor of Mathematics; AAS, Colorado Mesa University; BS, Colorado Mesa University; MS, University of Colorado-Boulder

**Denise McKenney** (1996), Professor of Biology; BS, New Mexico State University; PhD, North Carolina State University-Raleigh

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

**Kyle McQuade** (2006), Professor of Biology; BS, Millikin University; PhD, University of Wisconsin-Madison

**Carrie McVean** (1993), Professor of Biology; BS, Colorado State University; DVM, Colorado State University

**Michelle Mellenthin** (2019), Assistant 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

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

**Daniel Meyer** (2018), Assistant Clinical Professor of Physician Assistant Studies; BS, University of Colorado; MS, Des Moines University

**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

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

**Les Miller** (2003), Associate Professor of Philosophy; BA, Colorado Mesa University; MA, Claremont Graduate University; PhD, Claremont Graduate University

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

**Daniel Millward** (2018), Assistant Clinical Professor of Physician Assistant Studies; BS, Brigham Young University; MMS, Salus University

**Sloane Milstein** (2019), Assistant Professor of Kinesiology; BBA, University of New Mexico; MEd, Temple University; EdD, Southern Connecticut State University

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

**Brad Montgomery-Anderson** (2018), Associate 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; BM, Lee University; MM, McGill University

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

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

## N

**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), Assistant Professor of Nursing; BSN, South Dakota State University; MSN, Regis University

## O

**John O'Neill** (2021), 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

**Jacob Ongaki** (2018), Assistant Professor of Business; BS, Daniel Webster College; MS, South New Hampshire University; MBA, South New Hampshire University; PhD, North Central University-Scottsdale

**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), Associate Professor of Statistics; BS, St. Mary's University; MS, University of Missouri-Rolla; PhD, Rice University

**Gina Owens-Ott** (2006), Professor of Accounting; BS, Norfolk State University; MBA, University of Missouri-Kansas City; MEd, Emporia State University; DBA, California Southern University

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

**Ayse 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

**Kristina Pagel** (2021), Instructor of Psychology; BS, University of Wisconsin-Oshkosh; MA, University of Chicago; PhD, University of Chicago

**Tammy Parece** (2016), Assistant Professor of Geography; BS, Virginia Commonwealth University; MS, Virginia Polytechnic Institute & State University; PhD, Virginia Polytechnic Institute & State 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

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

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

**Nathan Perry** (2010), Associate Professor of Business; BA, Westminster College; PhD, University of Utah

**Joshua Pertile** (2020), Technical Instructor of Mechatronics; BS, University of Wisconsin; MS, University of Colorado

**Sean Phelps** (2018), Assistant Professor of Kinesiology; AAS, Northwest Community College; BA, Eastern Montana College; MS, Montana State University-Billings; PhD, Florida State University

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

**Randy Phillis** (1992), Professor of English; BA, Wichita State University; MFA, Wichita State University; PhD, Oklahoma State University

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

**Justin Pomeranz** (2019), Instructor of Environmental Science and Technology; BS, Colorado State University; MS, Colorado State University; PhD, University of Canterbury, New Zealand

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

**Zoe Praggastis** (2021), Instructor of Biology; 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

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

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

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

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

**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

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

**Ona Ridgway** (2020), Visiting Professor, APRN; 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

**Margaret Riley** (2018), Assistant Professor of Nursing; AAS, Vancouver Island College; BSN, Regis University; MS, Regis University; PhD, Capella University

**Alison Robb** (2015), Technical Instructor, Wildland Fire Management Program Director; BS, University of Montana; BA, University of Montana

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

**Edith-Marie Roper** (2020), Instructor of English; BA, Washington State University; MA, Washington State University

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

**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

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

**Cassidy Sanders** (2020), Assistant Professor of Physician Assistant Studies; AA, Bismark State College; BS, University of Mary; MPA, University of Utah School of Medicine

**Christi Sanders Via** (2018), Assistant Professor of Business; BS, Tarleton State University; MS, Tarleton State University; DBA, Walden University

**Kristin Santos** (2017), Assistant 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

**Mark Schmalz** (2014), Instructor of Teacher Education; BA, Colorado Mesa University; MA, Adams State College

**Justin Schmidt** (2020), Technical Instructor of Electric Lineworker; AAS, Manhattan Area Technical College

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

**Lisa Schmidt** (2022), Instructor of Surgical Technology;

**Stacie Schreiner** (2013), Assistant Professor of Nursing; BSN, Colorado Mesa University; MSN, Colorado Mesa University; DNP, Colorado Mesa University

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

**Elizabeth Sharp** (2011), Associate Professor of Kinesiology; BS, Arkansas Tech University; MEd, Arkansas Tech University; PhD, Middle Tennessee State University

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

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

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

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

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

**John 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, Energy Management/Landman Program Coordinator; BS, University of Oklahoma

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

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

**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** (2007), Associate Professor of Nursing; BSN, University of Northern Colorado; MSN, Regis University

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

**Michelle Sunkel** (2012), Associate Professor of Social Work; BS, Lincoln University; MSW, San Diego State University; DSW, Capella University

**Thomas Sylvester** (2017), Technical Instructor of Land Surveying;

## T

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

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

## U

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

## V

**Richard Vail** (1997), Professor of Business; BSME, University of California-Davis; MBA, University of Colorado; MSc, Trinity College; PhD, Oxford University

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

**Scott Vangemeran** (2015), Assistant Professor of Radiologic Science; BS, University of Kansas; MS, Weber State University

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

**Elaine Venter** (2017), Assistant Professor of Mass Communication; BA, California State University-Fresno; MA, University of San Francisco; MA, Claremont University

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

## W

**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

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

**Wayn Ward** (2009), Instructor of Mathematics; BS, Colorado Mesa University; MS, University of Nevada-Las Vegas

**Victoria Warnaar** (2020), Assistant Professor of Occupational Therapy; BA, Augustana College; DOT, Huntington University

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

**Heather Watt** (2020), Assistant Professor of Occupational Therapy; BS, Colorado State University; MSOT, Arizona School of Health Sciences; DOT, University of Utah

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

**Denita Weeks** (2018), Assistant 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** (2021), 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

**Steven Werman** (1989), Professor of Biology; BS, California State University-Long Beach; MS, California State University-Long Beach; PhD, University of Miami

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

**Charles White** (2020), Technical Instructor of Information and Communication Technology; AAS, Sandhills Community College; BS, Barton College

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

**Catherine Whiting** (2020), Assistant 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

**Timothy Winegard** (2013), Assistant 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), Assistant Professor of Nursing; BS, Western Governors University; MSN, Western Governors University

**William Wright** (1998), Professor of English; BA, Linfield College; MA, University of New Hampshire; PhD, University of Arizona

## Z

**Veronica Zarlingo** (2018), Assistant Professor of Nursing; AAS, Colorado Mesa University; BSN, Colorado Mesa University; MSN, Walden University

**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/future](http://coloradomesa.edu/future).

**Western Colorado Community College (WCCC)** 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. WCCC serves the career technical education and workforce training needs of both the university and area high school students. The community college also serves the community through summer camps and targeted certificates to serve industry and businesses. Explore all that WCCC has to offer at [wccc.coloradomesa.edu](http://wccc.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](http://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

The **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.

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

**Building B (1997)**, located on the Bishop Campus, houses WCCC student services offices, the Community Education Center and Chez Lena restaurant as well as instructional space for culinary arts, computer aided design, the peace officer standards and training academy, applied business, visual communications/film-making and high school programs.

**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. Escalante Hall is also home to KRMJ-TV, the Grand Junction affiliate of Rocky Mountain PBS.

The **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.

**Health Sciences (2014, 2017)**, located on the north end of the Grand Junction 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.

**Little Mavericks Learning Center (2018)** is a newly acquired and renovated facility. The Little Mavericks Learning Center is also home to the Mini Mavericks facility offering infant care to students, faculty, CMU staff and the community.

The **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 Stadium, home to Maverick tennis, soccer, and lacrosse. Immediately west of the complex are physical education and practice athletic fields, the Bus Bergman Field, and the Softball Stadium. The Softball Stadium was expanded in 2019 to include enhanced seating for spectators.

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

**Maverick Pavilion (2014)** hosts numerous indoor sport activities throughout the year and includes the Chamberlin Cycling Center and a 38-foot climbing wall. The Pavilion also hosts a litany of external sporting events and regional athletic tournaments. It is currently under construction to include 4 new wood courts, Kinesiology Space, drop down

basketball hoops and volleyball nets, a running track that will connect into the Maverick Center. Expected completion early 2023.

The **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. CMU is rebuilding Robinson Theatre and the lobby after the Fall 2022 season.

The **John U. Tomlinson Library (1986, 2015)** expands the traditional library concept to include physical and electronic holdings and circulation of 365,000 library materials that are available in a variety of formats. About 23,000 journal titles are available via the library website and more than 20 million items are available through Prospector. The Tomlinson Library includes a diverse array of hospitality services including a full service cafeteria and coffee shop.

The **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-foot 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

The **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.

**Albers Hall (1935, 2008, 2012)** houses staff offices for Marketing and Communications, The Greater Grand Junction Sports Commission and the Special Olympics.

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

**Lowell Heiny Hall (1967)** is a four-level building housing faculty and administrative offices. The garden level/first floor is home to IRIS (Integrated Resources for Information and Solutions), a hub for student services that includes the Office of Student Success and Financial Aid offices. The fourth floor houses the Registrar's Office and the Student Affairs Office. The west side of the building features the Gordon Gilbert Amphitheater (dedicated 2009), an outdoor gathering/classroom space.

The **Outdoor Program (OP) office (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 CMU's International Student Admissions and Programs Office as well as CMU's new E-Sports program.

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

## Residence Halls

**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- and second-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. All current, registered students have MavCard access to this portion the hall.

**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.

## Community and Outdoor Spaces

The **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.

The **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.

The **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.

The new **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.

The **Pump Track (2020)**, located adjacent to the Hotel Maverick, features multiple courses for bicycle enthusiasts of all kinds to test their skills and races each other.



The **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 a convenience store; Starbucks®; Chick-fil-A® and the main dining hall. It also houses an activity lounge for electronic gaming, pool tables, large screen TVs and The Point, a student-run pub. On the first floor you will also find the MAVcard Office, Career Services and the Information Desk/Parking Services customer service area, and 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. 93). 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 Arts in Criminal Justice Leadership and Policy (MA)
- 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 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](mailto:info@hlcommission.org)

commission-approved service area. Colorado Mesa University shall also serve as a regional education provider.

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. 25).

## HEOA (Higher Education Opportunity Act) 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.

## 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: 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

## Mission, Vision and Values

### Institutional Mission Statement

Committed to a personal approach, Colorado Mesa University is a dynamic learning environment that offers abundant opportunities for students and the larger community to grow intellectually, professionally, and personally. By celebrating exceptional teaching, academic excellence, scholarly and creative activities, and by encouraging diversity, critical thinking, and social responsibility, CMU advances the common good of Colorado and beyond.

### Institutional Vision and Values

Colorado Mesa University is an institution of higher education that successfully prepares students from diverse backgrounds for lives of career and service anywhere in the world. Colorado Mesa University seeks to be the first-choice institution for students, faculty, and staff.

To achieve this vision Colorado Mesa University leverages:

- An adaptable, flexible approach to learning that allows students to choose from multiple and potentially integrated pathways to achieve certificate, associate, bachelor, and graduate degrees.
- A highly qualified faculty that excels in teaching and interacting with students.
- A curriculum, often bridging liberal education and professional programs, that successfully prepares students for the 21st century in the areas of personal and social responsibility, civic engagement, ethics, and intercultural/ global learning.
- Continued investment in facilities and technology that expand, expedite, and enhance learning for every student.
- Community support from businesses, industries, alumni, and residents of the region.
- A wide array of academic programs that are improved on an on-going, continuous basis for quality and relevance to Western Colorado's needs in the context of an ever-changing world.
- An administration that uses human and natural resources wisely, embraces excellence, is committed to shared governance, and is focused on the future.

The Colorado Mesa University learning community embraces diversity of students, faculty, staff, ideas, and degree levels, while maintaining a quality educational environment that focuses on serving its many constituents. CMU is its region's primary intellectual and cultural center, promoting the exchange of ideas that are of regional, national, and international importance.

Colorado Mesa University values:

- high quality education in a student-centered environment;
- small class sizes and a high level of student/faculty interaction;
- a learning environment that develops and promotes the skills of inquiry, reflection, critical thinking, problem-solving, innovation, teamwork, and communication in students;
- student choice in academic programming that prepares future leaders to function as productive and responsible members of a global society;
- opportunities that engage students in applied learning;

- a faculty recognized for their professional expertise and quality of instruction;
- a staff committed to the highest quality of service to the College community;
- an attainable, accessible post-secondary experience for students in and outside of Western Colorado that emphasizes continuous improvement;
- a vibrant and varied campus setting that values diversity and diverse activities, and encourages involvement and interaction outside the classroom;
- a culture committed to integrity and academic and intellectual freedom;
- a community and region that supports the College in multiple ways;
- state-of-the-art facilities and technologies that enhance the learning environment; and
- a diversity of students, faculty, staff that promotes a balanced exchange of ideas.

## Accreditation

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

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

- **Athletic Training:** The Colorado Mesa University Master of Science in Athletic Training program 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*.
- **Aviation Technology:** Certified by the Federal Aviation Association (FAA)
- **EMT/Paramedic:** Certified by the Committee of Accreditation of EMS Programs (CoAEMSP)
- **Landman Energy Management Program:** American Association of Professional Landman (AAPL).
- **Mechanical Engineering Technology:** Students completing the Colorado Mesa University Mechanical Engineering Technology (MET) program will receive a Bachelor of Science degree in Mechanical Engineering Technology. The Bachelor of Science MET Program is accredited by the Engineering Technology Accreditation Commission of ABET.
- **Medical Laboratory Technician:** National Accrediting Agency for Clinical Laboratory Sciences (NAACLS).
- **Music:** Accredited Member of the National Association of Schools of Music, 11250 Roger Bacon Drive, Suite 21, Reston, VA 20190-5248, 703.437.0700, [info@arts](mailto:info@arts).
- **Nursing:** The baccalaureate degree programs, master's degree programs, and Doctor of Nursing Practice program at Colorado Mesa University are accredited by the Commission on Collegiate Nursing Education (CCNE), 655 K Street, NW, Suite 750, Washington, DC 20001, 202.887.6791.
- **Nursing:** The Practical Nursing Program at Colorado Mesa University located in Grand Junction, Colorado is accredited by the Accreditation Commission for Education in Nursing (ACEN), 3390 Peachtree Road NE, Suite 1400, Atlanta, GA 30326, 404.975.5000.

- The most recent accreditation decision made by the ACEN Board of Commissioners for the Practical Nursing Program is Continuing Accreditation.
- **Nursing:** The Associate Nursing Program at Colorado Mesa University, located at the Montrose, Colorado campus, is accredited by the Accreditation Commission for Education in Nursing (ACEN), 3390 Peachtree Road NE, Suite 1400, Atlanta, GA 30326, 404.975.5000.
  - The most recent accreditation decision made by the ACEN Board of Commissioners for the Associate Nursing Program is Initial Accreditation.
- **Peace Officer Standards and Training (POST):** Approved by the Colorado Peace Officer Standards and Training Board.
- **Radiologic Technology:** The Baccalaureate of Science in Radiologic Sciences (BSRS) Program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT).
- **Social Work:** Council on Social Work Education.
- **Strength and Conditioning/Personal Training Program:** The Department of Kinesiology has met established educational program criteria to be designated as a National Strength and Conditioning Association (NSCA) Education Recognition Program (ERP).
- **Surgical Technology:** The Surgical Technologist program is accredited by the Accreditation Review Committee on Surgical Technology/ Surgical Assisting (ARC/STSA) under the auspices of Commission on Accreditation of Allied Health Education Programs (CAAHEP).
- **Teacher Education:** Approved by the Colorado Commission on Higher Education and the Colorado Department of Education to prepare teachers for licensure application.
- **Transportation Services:** Certified by the Automotive Society of Engineers (ASE) Education Foundation.

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 contact 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 provides the Western Slope's second largest community local access to postsecondary education. 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 LPN.

To meet the needs of high school graduates and adult working students, classes occur primarily in the afternoons and evenings. Classrooms are limited to no more than 30 students to ensure students receive personal attention from their instructors.

The campus is adjacent to the Montrose Regional Library. Facilities include classrooms with advanced instructional technology, computer labs, and study lounges. The campus also has a career and technical facility for welding, machining technology, and Police Officer Standards Training (POST) for students interested in a career in law enforcement.

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 5 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 Western Colorado Community College, 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

## 2022-2023 Academic Calendar

The following dates are subject to change. Changes will be published to the [Important Dates](#) webpage.

### Summer Semester 2022

Date	Event
May 30	Memorial Day – No classes
May 31	Full semester and first summer module classes begin
June 2	Last day to add or drop a first summer module class
June 7	Last day to add or drop a full semester class
June 16	Last day to withdraw from a first summer module class with a grade of "W"
June 25	First summer module classes end
June 27	Second summer module classes begin
June 29	Last day to add or drop a second summer module class
June 29	Summer census – date after which credit hours are counted in COF attempted hours
July 4	Independence Day (Observed) – No classes
July 6	Last day to withdraw from a full semester class with a grade of "W"
July 14	Last day to withdraw from a second summer module class with a grade of "W"
July 22	Full semester and second summer module classes end

### Fall Semester 2022

Date	Event
August 3	Residency petitions due to Tuition Classification Officer (Admissions Office)
August 22	Full semester and first module classes begin
August 29	Last day to add or drop a first module class
September 5	Labor day - campus open - classes in session
September 6	Last day to add or drop a full semester class
September 6	Fall census – date after which credit hours are counted in COF attempted hours
September 12	Late start classes begin
September 22	Last day to add or drop a late start class
September 26	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 13	First module classes end
October 14-16	Fall Break – no classes
October 17	Second module classes begin
October 24	Last day to add or drop a second module class
October 24	Priority registration for spring 2023 classes begin
October 31	Last day to withdraw from a full semester class with a grade of "W"
November 7	Last day to withdraw from a late start session with a grade of "W"

November 17	Last day to withdraw from a second module class with a grade of "W"
November 19-27	Thanksgiving holiday – no classes
December 12-15	Final examinations
December 15	Fall semester ends
December 16	Commencement

### Spring Semester 2023 (including January Term)

Date	Event
January 3	Residency petitions due to Tuition Classification Officer (Admissions Office)
January 3	January term (J-Term) classes begin
January 4	Last day to add or drop a January term class
January 13	Last day to withdraw from a January term class with a grade of "W"
January 16	Martin Luther King, Jr. Day – No Classes
January 21	January term classes end
January 23	Full semester and first module classes begin
January 30	Last day to add or drop a first module class
February 7	Last day to add or drop a full semester class
February 7	Spring census – date after which credit hours are counted in COF attempted hours
February 13	Late start classes begin
February 23	Last day to add or drop a late start class
February 28	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 17	First module classes end
March 18-26	Spring Break – No Classes
March 27	Second module classes begin
April 3	Last day to add or drop a second module class
April 3	Priority registration for summer and fall 2023 begins
April 10	Last day to withdraw from full semester classes with a grade of "W"
April 17	Last day to withdraw from a late start session with a grade of "W"
April 27	Last day to withdraw from a second module class with a grade of "W"
May 15-18	Final examinations
May 18	Spring semester ends
May 20	Commencement

# POLICY STATEMENTS

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Additional FERPA information is available on the [Family Education Rights and Privacy](#) page of the website.

## 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.

# UNDERGRADUATE ADMISSION INFORMATION

- [Undergraduate Admission Procedures for Degree-Seeking Students](#) (p. 30)
  - [Admission of First-time Freshmen](#) (p. 31)
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## Undergraduate Admission Procedures for Degree-Seeking Students

### How to Apply

To be considered for admission, undergraduate applicants should:

1. Submit the Application for Undergraduate Admission along with a \$40 non-refundable application processing fee or fee waiver documentation.

Prospective students are highly encouraged to submit applications electronically via [Apply to CMU](#) or the Common Application. Upon receipt of a completed admissions application and supporting documentation, applicants will be notified of their admissions status via the mail and by email.

Students may submit their application for the following terms as early as:

Spring semester 2023: August 1, 2022  
 Summer semester 2023: August 1, 2022  
 Fall semester 2023: August 1, 2022

2. Submit the appropriate supporting documentation, as outlined in the table on the following page, directly to:

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

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

For more information about admissions requirements, please also visit the admissions information page most applicable to the student's application status:

- [Admission of First-time Freshmen](#) (p. 31)
- [Admission of Transfer Students](#) (p. 31)
- [Admission of International Students](#) (p. 32)
- [Admission of Returning Students](#) (p. 32)
- [Admission of Adult Students](#) (p. 33)
- [Baccalaureate Admission Requirements](#) (p. 33)
- [Admission to Specific Undergraduate Programs](#) (p. 33)

## 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 Center for Transfer Services, within the Admissions Office, for help with the admissions and evaluation processes. Transfer students may be admitted into most baccalaureate degree programs 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 college-level 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 college-level courses attempted, but excluding courses completed while in high school. 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 a baccalaureate degree, with less than 24 transfer credit hours, it is recommended they meet HEAR recommendations as outlined in the [HEAR section](#) (p. 34) of this catalog.

Transfer students who are on probation or suspension from another college or university, or have a cumulative grade point average of less than 2.4, will not be admitted into a baccalaureate degree program but may enroll in Western Colorado Community College. Transfer students who are on probation or suspension from another college may be placed on probation at Colorado Mesa University.

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.

Also see [Admission of Transfer Students](#) (p. 31) 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, please instead refer to [Admission of Transfer Students](#) (p. 31) 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. 33).

Student Degree Intent	Official High School Transcript <sup>1</sup>	Standardized Test Scores <sup>2</sup>
Four-Year Degree-Seeking	Required; sent directly to university from high school. <sup>3</sup>	Optional <sup>5</sup>
Two-Year Degree-Seeking (AA, AS)	Required; sent directly to university from high school	Optional <sup>5</sup>
Two-Year Degree-Seeking (AAS)	Required; sent directly to university from high school	Optional <sup>5</sup>
Certificate-Seeking	Required; sent directly to university from high school	Optional <sup>5</sup>
Non-Degree-Seeking	None <sup>4</sup>	Not required <sup>5</sup>

- <sup>1</sup> Preliminary transcript will be accepted until final transcript is submitted; also applies to home-schooled students.
- <sup>2</sup> CMU will super score multiple test scores for admission and scholarship determination.
- <sup>3</sup> GPA and HEAR recommendations will be reviewed. If you take the SAT/ACT, results may be used for admission.
- <sup>4</sup> Must become degree-seeking by no later than completion of 30 credit hours and complete high school diploma or GED.
- <sup>5</sup> Placement tests or prerequisites may be required.

Note: In addition to the requirements shown above, some academic programs have additional admission requirements. Admission to Colorado Mesa University 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 <sup>3</sup>	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 <sup>1</sup>
Official College Transcript <sup>2</sup>	Required; sent directly to university from previously attended institution(s) <sup>4</sup>	Required; sent directly to university from all previously attended institution(s) <sup>4</sup>	Required; sent directly to university from all previously attended institution(s) <sup>4</sup>	Required; sent directly to university from all previously attended institution(s) <sup>4</sup>	Not required <sup>1</sup>
Standardized Test Scores	Optional <sup>4</sup>	Optional <sup>4</sup>	Optional <sup>4</sup>	Not required	Not required <sup>1</sup>

- <sup>1</sup> Must become degree-seeking by no later than completion of 30 credit hours and complete high school diploma or GED.
- <sup>2</sup> 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.
- <sup>3</sup> CMU will review high school GPA and coursework along with transfer GPA and coursework for admission.
- <sup>4</sup> May be required for admission to selected programs; will be required for placement in essential learning courses.



## 24+ Credit Hours

Category	Four-Year Degree-Seeking	Two-Year Degree-Seeking (AA, AS)	Two-Year Degree-Seeking (AAS)	Certificate-Seeking	Non-Degree Seeking
<b>Official College Transcript</b> <sup>1</sup>	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 <sup>3</sup>
<b>Transfer GPA</b>	2.40	2.00 <sup>2</sup>	No minimum	No minimum	Not required <sup>3</sup>

<sup>1</sup> Include transcripts of college courses completed while still in high school.

<sup>2</sup> Students who left their previous institution(s) and were not in good academic standing must earn a minimum 2.00 GPA during their first semester.

<sup>3</sup> 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 and Programs Office. Detailed requirements and forms are found on the [International Admissions](#) webpage.

1. [International Student Application](#) with \$30 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, an official copy of the professionally evaluated foreign transcript(s) evaluation;
5. The [CMU Notarized Statement\(s\) of Financial Support](#) and official bank statement(s) showing proof of funds;
6. Copy of ACT or SAT scores (if taken);
7. For registration purposes, all international students are required to maintain health insurance. Students will be enrolled in CMU's international student group insurance plan unless waiver requirements are met;
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 are encouraged to apply by May 1 for fall semester and by October 1 for spring semester.

### English Proficiency Requirements:

Prospective 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 for undergraduate admission and 80 iBT/550 paper-based for graduate admission.
2. Submission of IELTS exam scores with a minimum of Band 6 for undergraduate admission and Band 7 for graduate admission.
3. Enroll and successfully complete an approved intensive English program. A program must be pre-approved by the CMU International Student Admissions and Program Office.
4. 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.
5. 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 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 an 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. Should a student decide to begin their degree from the beginning at CMU, official transcripts in English are required but a professionally evaluated transcript/degree is not.

### 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](#) by choosing the "Returning CMU Student" link. 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. 68) 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. 61) 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 (CMU)/Western Colorado Community College (WCCC) 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 test scores.

### Compass Program

Baccalaureate seeking students who are not recommended for full-baccalaureate admission based on the holistic review process may be offered provisional admission in the Compass Program. Students may transition to a baccalaureate 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 be eligible to enroll in college-level English and math courses, and 4) earn a 2.0 cumulative grade point average.

## GOALS Program

Greater Opportunity for Academic and Life Success (GOALS) is designed for students who do not meet the admission requirements to directly enter CMU’s baccalaureate degree. Students in the GOALS Program are initially admitted to an Associate’s degree until they meet the requirements to internally transition into a four-year baccalaureate degree. Students will take (UNIV 100), a semester-long course designed to provide skills to succeed in college in life. Students will focus on study skills, self-management skills, financial literacy, and major/career exploration. Additionally, students are supported through individualized academic advising and college success workshops.

The GOALS program supports students until they have successfully completed the following requirements: completed 24 credits of 100-level or above course work, college ready for both math and English, and has a cumulative 2.0 grade GPA or better. The GOALS program will help students explore the pathways toward either completing a certificate, associate or bachelor’s degree.

## 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. 93) 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 must consistently earn a minimum semester grade point average of 2.0 while enrolled at Colorado Mesa University.
5. 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.
6. Degree-seeking students will have priority over non-degree seeking students regarding registration.
7. 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 either the university’s four-year or two-year divisions, according to the student’s degree intent. Admission to the university’s four-year division, 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.

Applicants applying for enrollment in Western Colorado Community College, Colorado Mesa University’s two-year division, are reviewed with the community college’s open admission policy. Students may later request to transfer into a baccalaureate degree program after successfully completing a minimum of 24 college-level semester credit hours and a cumulative grade point average of 2.0 or better or after earning an associate degree. Students with less than 25 college-level credit hours may also be subject to the [Colorado Higher Education Admission Recommendations \(HEAR\)](#) (p. 34).

Any transfer student admitted to Colorado Mesa University on a probationary status must earn a minimum 2.0 GPA the first semester or be placed on academic suspension and will not be eligible to return to Colorado Mesa University as stated under the academic suspension guidelines.

## 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 Association of Colleges and Schools
  - New England Association of Schools and Colleges
  - Northwest Commission on Colleges and Universities
  - The Higher Learning Commission
  - North Central Association of Schools and Colleges

- Southern Association of Schools and Colleges
- Western Association of Schools and Colleges
- gtPathways, Colorado guaranteed general education transfer courses (see Catalog section on [Colorado Department of Higher Education Statewide Guaranteed Transfer Courses](#) (p. 78)).
- 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 Program \(CLEP\)](#) 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. 61) 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. 68).

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. 68).

Graduate credits: refer to the section on [Transfer Credit under Graduate Programs](#) (p. 79).

## 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

Any person assigned the sex of male at birth and born after 1959 wishing to attend classes at Colorado Mesa University must attest to their registration or exemption from registration with the Selective Service. This testimony must be done prior to initial registration.

## 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 five distinct programs as provided through the Concurrent Enrollment Act (CE).

## Early Scholars Program

Through Colorado Mesa University and Western Colorado Community College'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 Western Colorado Community College'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 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.

## 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.). WCCC 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 Western Colorado Community College. Students (or parents or legal guardians if student is a minor) are typically responsible for payment of any fees, books (most Tech Scholar books are provided), and supplies. Students must apply as a concurrent student and be admitted by the Western Colorado Community College 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](#). Upon admission, students then submit the [Registration Form](#), current high school transcript, and appropriate test score reports. All Early Scholars or High

School Scholars Program students must submit a Concurrent Enrollment Program 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 Western Colorado Community College. Students must complete and submit the [Online Concurrent Enrollment Application](#). Upon admission, students must then register using the appropriate Tech Scholar- High School Students Registration Form ([GJ-WCCC](#) or [Montrose](#)) prior to the start of each semester.

### 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 his/her 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 by June 1 to apply for the ASCENT program: Western Colorado Community College application, ASCENT Registration Form, current high school transcript, and appropriate test score reports.

### 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 4, 5, and 6 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 Early Scholars/High School Scholars enroll in college-level course(s), participating students must meet the same course requirements as other college and 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 D2L introduction course. Failure to complete the D2L introduction may result in the student being dropped from the online class.
6. High school seniors may take developmental basic skills courses under the provisions of the Concurrent Enrollment program. Grades earned in the Concurrent Enrollment program are part of the student's permanent CMU record and will appear on his/her 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 or F in any CMU or WCCC course while enrolled in the Concurrent Enrollment program may be financially responsible for repayment of all tuition paid for the course to their school district. Further, students earning a grade of D or F while enrolled in the Concurrent Enrollment program may be prohibited from enrolling in any additional courses until they successfully pass the failed course(s) and meet their financial obligations for tuition repayment, 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: university 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 must re-apply to Colorado Mesa University/ Western Colorado Community to continue beyond their ASCENT year.

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. 42) section of this catalog or contact the Tuition Classification Officer located in the Admissions Office at 970.248.1875.

## 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

SAT or ACT results are not required for admission purposes.

SAT or ACT scores may be used for merit scholarship consideration and institutional research. CMU will super score multiple test scores for scholarship determination. SAT or ACT test results may be used as an aid in course placement.

Prospective students are encouraged to take the SAT or ACT during their high school junior or senior year. Transfer students with less 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 evaluation and assessment purposes. Please see the Learning Progress Evaluation section under [General Undergraduate Academic Policies](#) (p. 61).

## 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 first-time freshmen are required to participate in new student registration to receive their first semester courses. Information regarding new student registration will be emailed to students upon notification of acceptance and also can be found on the Colorado Mesa University [Orientation website](#).

Students must be admitted prior to starting the new student registration process. For more information, call 970.248.1875.

## 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.

## **Academic Transition Courses**

The University offers supplemental courses to assist students in the transition to higher education:

### **Freshman Year Initiative (FYI)**

New freshman students are strongly encouraged to enroll in the university's Freshman Year Initiative (FYI) program. Students are registered for UNIV 101 to maximize their potential for success in college. The course covers topics such as time management, study skills, financial literacy, campus safety, test-taking strategies, health, and communicating effectively with university professors and staff members. For more information, visit the [FYI](#) website.

### **Maverick Provisional Program (MVP)**

New freshman students admitted at the Compass (previously PB) level are strongly encouraged to enroll in the university's Maverick Provisional Program (MVP). Students are registered for UNIV 100 and are individually mentored by both professional staff mentors and peer coaches to assist them in making a successful transition to college by learning strategies and skills they will need to successfully navigate their first year. For more information, visit the [MVP](#) website.

# 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](#) 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 Office of Financial Aid 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

Office of Financial Aid  
Colorado Mesa University  
Lowell Heiny Hall Room 117  
1100 North Avenue  
Grand Junction, CO 81501-3122  
Call toll free 800.982.6372 or 970.248.1396  
[financialaid@coloradomesa.edu](mailto:financialaid@coloradomesa.edu)

## General Guidelines

Financial need for educational expenses 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.

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 our [website](#) 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 \$49 million. It has over 370 named foundation scholarships which provide more than \$3.3 million in financial aid to CMU students every year.

The CMU Foundation is a non-profit organization governed by a 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 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.

## 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.

# 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.

## Contents

- [Tuition and Fees](#) (p. 42)
- [Other Fees and Expenses](#) (p. 42)
- [Tuition and Fee Schedule](#) (p. 43)
- [College Opportunity Fund](#) (p. 44)
- [Residence Life and Dining](#) (p. 44)
- [Residency Status](#) (p. 46)
- [Campus Payment Plan](#) (p. 48)
- [Residency Petition Deadlines](#) (p. 48)

## Tuition and Fees

Tuition and fees for the 2022-2023 academic year are current as of the time that this catalog was printed. 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. 58) 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](http://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.

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
Enrollment Deposit	\$50.00
Activity Fee	\$60.00

### Parking Permits:

Fee or Charge	Amount
Commuter	\$120.00
Online Day Permits	\$5.00
Faculty/Staff	\$120.00
Motorcycle	\$30.00
Pay Lots	\$1/hour
Reserved	\$300.00
Residence Hall	\$145.00
Reserved Residence Hall	\$210.00
Value Lots	\$60.00

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.

## Student Health Insurance

CMU works with local health insurance companies to secure discounts for students. The student must contact the provider directly for prices, payments, and claims. Student health insurance rates change each semester. Rates are established by the insurance providers and vary based on coverage selected. Contact information for health insurance providers can be found on the [Office of Student Accounts](#) website.

## 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:** systems 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:** desktop computers are generally less expensive than laptops or tablets of comparable computing power. However, portability and wireless connectivity can make laptops or tablets a preferred choice as a desktop replacement or second computer.

Thoughtful consideration of your study habits in and outside of the classroom will help you choose the right type.

**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. 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 or personal computers.

**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, which includes the Microsoft Office suite. 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 academic year 2022-2023; 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. This fee takes the place of add/drop fees, transcript fees, graduation fees, etc.

## Examples:

- Undergraduate who is full-time, in-state, COF-eligible  
(Note: 12 credit hours per semester is full-time for financial aid purposes. COF availability and amounts are subject to change by actions of the Colorado General Assembly.)

Per Semester

Description	Cost
Total tuition for 12 credit hours	\$4,788.60
Less COF (state's share of tuition)	-\$1,248.00
Equals student's share of tuition	\$3,540.60
Plus general purpose student fees	+\$444.00
Equals total due from student	\$3,984.60

- Undergraduate who is full-time, out-of-state, non-COF-eligible  
(Note: 12 credit hours is full-time for financial aid purposes)

Per Semester

Description	Cost
Total tuition for 12 credit hours	\$9,421.20
Plus general purpose student fees	+\$444.00
Equals total due from student	\$9,865.20

- Undergraduate who is part-time, in-state, COF-eligible

Description	Cost
Tuition per credit hour	\$399.05
Less COF per credit hour (state's share of tuition)	-\$104.00
Equals student's share of tuition	\$295.05
Plus general purpose student fees	\$37.00
Equals total due from student per credit hour	\$332.05

- Undergraduate who is part-time, out-of-state, non-COF-eligible

Description	Cost
Tuition per credit hour	\$785.10
Plus general purpose student fees	+\$37.00
Equals total due from student per credit hour	\$822.10

- 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](http://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 - see *Residence Requirements* for details.

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:

- 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).
- Two semi-suite style residence halls with 4 students per suite that share one bathroom. These halls require a meal plan;
- 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;
- 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.
- One modified apartment complex of all single rooms in pods of four. Each pod has a mini kitchen and each floor has 1-2 common kitchens. This hall is 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 2,659 students. Fall housing applicants will be placed using our auto-assign process until opening day. Students may use [My College Roomie](#) to help find a roommate of their choice.

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 housing on campus should be directed to Residence Life at 970.248.1536 or email [reslife@coloradomesa.edu](mailto: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. Two great resources for CMU students are [Off Campus Partners](#) and [Almost Home](#). "Almost Home" is a Grand Junction community service for listing rental properties and roommate exchange. The listings are posted on the [Catholic Outreach](#) website. Properties are not religiously affiliated.

## Campus Dining

Campus Dining Services offers food service to students at Colorado Mesa University which includes a choice of two meal plans (prices are per semester):

Plan	Service
A	Unlimited meals in the Dining Hall with \$150 in MAVmoney that can be used at several restaurants around campus
B	Unlimited meals in the Dining Hall with \$150 in MAVmoney that can be used at several restaurants around campus

Multiple entrees are served with unlimited seconds. Weekday breakfast starts at 6:45am for those in enrolled in meal plan A, and 10:30am for meal plan B. Only two meal periods are available on Saturday and Sunday (brunch and dinner). Both meal plans have full access to brunch and dinner 10:30am to 1:30pm and 5:00pm to 8:00pm. Aspen Apartments meals 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 2022 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.

### Bunting Hall (semi-suite):

Room or Apartment Type	Rate
Lofted Double	\$3,325.00
Double room	\$3,737.50
Single room	\$4,657.50
Super single	\$5,187.50

### Garfield Hall (traditional):

Room or Apartment Type	Rate
Double room	\$3,075.00

### Grand Mesa Hall (suite):

Room or Apartment Type	Rate
Double room	\$3,535.00
Single room	\$4,657.50
Super single	\$5,200.00

### Monument Hall (semi-suite):

Room or Apartment Type	Rate
Double suite	\$3,282.50

### Lucero Hall:

Room or Apartment Type	Rate
Suite, double room	\$3,325.00
Suite, single room	\$3,645.00
Apartment, double <sup>1</sup>	\$3,687.50
Apartment, single <sup>1</sup>	\$4,090.00

<sup>1</sup> Meal plan optional**Orchard Avenue Apartments:**

Room or Apartment Type	Rate
Double room <sup>1</sup>	\$3,837.50
Single room <sup>1</sup>	\$5,175.00

<sup>1</sup> Meal plan optional**Piñon Hall (traditional):**

Room or Apartment Type	Rate
Double room	\$3,075.00
Single room	\$3,850.00

**Rait Hall (traditional):**

Room or Apartment Type	Rate
Double room	\$2,257.50
Single room	\$3,340.00

**Tolman Hall (traditional):**

Room or Apartment Type	Rate
Double room	\$2,257.50
Single room	\$3,340.00

**Walnut Ridge Apartments:**

Room or Apartment Type	Rate
Double room <sup>1</sup>	\$3,375.00
Single room <sup>1</sup>	\$4,040.00

<sup>1</sup> Meal plan optional**Wingate Hall:**

Room or Apartment Type	Rate
Double room	\$3,350.00

**Aspen Apartments:**

Room or Apartment Type	Rate
Single room which includes 7 meals per week	\$5,752.50

**Meal Plans**

All rates are per semester. Meal plans are available to all students and mandatory for those living in a traditional or suite-style residence hall. Plan A and Plan B each include \$150.00 in MAVmoney.

Plan	Service
A	Unlimited Dining Hall, \$2,686.00
B	Unlimited Dining Hall, \$2,472.50

**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](mailto: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) 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
- 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
- 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 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.

## 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. a 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, notarized 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. You may also pick up a copy in the Admissions Office. Completed, notarized petitions with all requested documents attached are to be submitted directly to the Tuition Classification Officer located in the Admissions Office. Please see the [residency petition deadlines](#) (p. 48).

## 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.

## 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 Veteran – copy of DD-214 reflecting Honorable Discharge must be provided to the CMU Veteran Services office;
- 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;
- military personnel is an honorably discharged service member currently living in Colorado, regardless of length of residency;
- 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.

## Citizenship and Tuition Classification

Unless otherwise noted in this section, only US citizens, permanent residents, and a select few Visa holders are eligible to be considered for in-state tuition status. Additionally, students 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 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;
3. Have completed the College Opportunity Fund (COF) application process including attached Affidavit.

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.

## 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 Earlier Than...	Submit Petitions No Later Than...
Fall 2022	First day of class	June 21, 2022	August 3, 2022
Spring 2023	First day of class	November 8, 2022	January 3, 2023
Summer 2023	First day of class	March 7, 2023	May 2, 2023
Fall 2023	First day of class	June 20, 2023	August 8, 2023
Spring 2024	First day of class	November 7, 2023	January 9, 2024

# 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  
 WCCC Student Services, 970.255.2660

## Admissions Office

1100 North Avenue  
 800.982.6372 or 970.248.1875

The Admissions Office serves as the welcome center for prospective 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.

## 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 new 24hr fitness venue, Lucero Fitness Facility, was added in 2019. All current, registered students will have MavCard access to this space. 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.

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 oversees 24 collegiate sport teams that participate in governing bodies 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.

## Career Services

University Center, Room 107  
 970.248.1404  
[career@coloradomesa.edu](mailto:career@coloradomesa.edu)

Career Services provides resources and guidance for students and alumni in their journey toward reaching their career goals. We take an active role in providing career exploration, workshops, events, and on-campus employer visits to encourage students to investigate and gain information while creating their career path. We also help employers make campus connections to build relationships toward meeting their recruitment needs and hiring goals. Some services include:

- Events:
  - Fairs – Career & Job, Graduate School, Teacher and Major Specific
  - On-Campus and Virtual Employer Recruiting
  - Etiquette Dinner
- Office Resources:
  - [Handshake](#) (student and alumni job and internship online posting platform found in MAVzone apps)
  - Optimal Resume (resume builder found in MAVzone apps)
- Student Appointment Types:
  - Resume
  - Cover Letter
  - Job and Internship Search Assistance
  - Mock Interviews
  - LinkedIn Profile Review
  - Personal Statements – Graduate School
  - Major and Minor Guidance
  - Strong Interest Inventory Interpretations

For more information and updates go to our [website](#) and follow us on [Facebook](#), [Instagram](#), and [LinkedIn](#)!

<sup>1</sup> Some restrictions may apply.

## Educational Access Services

Houston Hall, Room 108  
970.248.1856

[www.coloradomesa.edu/educational-access/](http://www.coloradomesa.edu/educational-access/)

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.

## 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 emergencies encountered by students. Issues such as messaging for emergencies while a student is in class are determined on a case-by-case basis. It is important to note that the office cannot guarantee a contact with any student due to their highly mobile behavior, but a good faith effort will be made. This service is not for non-emergency situations.

## 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, tennis, lacrosse, cross country, track and field, triathlon and wrestling. Basketball, cross country, golf, beach volleyball, soccer, softball, swimming, tennis, lacrosse, track and field, triathlon, volleyball, and wrestling are available to women.

Colorado Mesa University also offers competitive cheerleading.

## International Student Admissions and Programs Office

Rotary Hall • 970.248.1802

The International Student Admissions and Programs Office oversees international student admissions and recruitment, international student services and advising, international initiatives and development, international student programming, and study abroad.

## IRIS - Advising and Financial Counseling Center

Lowell Heiny Hall, First Floor  
970.248.1177

[IRIS Website](#)

[iris@coloradomesa.edu](mailto:iris@coloradomesa.edu)

CMU provides students holistic advising through the Integrated Resources for Information and Solutions (IRIS) center, where we assist students with anything from academic advising to financial counseling. Our mission is to advise and empower students to achieve their professional, educational, and financial goals by providing accurate, individualized support in their journey from admission to graduation.

IRIS Advisors serve as academic advisors for first time freshmen and students with undeclared majors. We assist students in course selection and registration, help students with strategies for academic success, guide students in career/major exploration, and facilitate connections with faculty advisors and other campus resources.

IRIS Advisors also serve as financial counselors and assist all students with explaining the financial aid process, understanding their bill, and setting up payment plans. IRIS also provides financial counseling for students in regards to their financial status at the institution.

Services provided at the IRIS center include:

- Provide general academic advising by assisting in course selection and registration
- Guide students in major exploration and assist with strategies for academic success
- Educate about administrative campus policies and procedures
- Explain and complete the financial aid process
- Help with understanding the student account and billing statement
- Assist with making payments and setting up payment plans
- Support through financial counseling
- Connect students with campus resources and departments

The IRIS team is here to assist students with advising, registration, billing, and financial aid – so when you have a question, just remember ... askIRIS!

## John U. Tomlinson Library

970.248.1244

Tomlinson Library is a welcoming, comfortable environment, providing 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 access to 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 Western Colorado Community College.

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 online 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

Little Mavs  
1704 N 8th Street  
970.248.1318

Mini Mavs  
880 Mesa Avenue  
970.248.1998

Childcare is available year-round for children of Colorado Mesa University students, faculty, and staff, plus community, in that priority order, on a first-come-first-serve basis. Mini Mavs serves infants six weeks old up to three years of age. Little Mavs serves children ages two through six years. Summer, Friday, and school district non-contact day programs are available for children in Kindergarten up to 12 years old and are open to the community. For further information, visit our [website](#) or email us at [cmulittlemavs@coloradomesa.edu](mailto: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' location such as Mountain Grind Coffee Company, Bravo Pizza, Domino's Pizza, Sugar & Co., Jimmy John's (on 12th Street) and The Scramble at WCCC. The MAVcard can be enhanced by linking it to a U.S. Bank checking account, allowing your MAVcard to become your debit card. You also benefit from linking by receiving free ATM usage and direct deposits.

## Mentoring Assistance

Lowell Heiney Hall • 970.248.1765

Mentoring is available through the Student Success and Engagement (SSE) office and provides mentoring assistance for students who are in need of support. The office will provide resources, support and encouragement to students facing a wide variety of challenges to encourage student success. A student is not alone in dealing with day-to-day worries and pressures of a University environment. The SSE staff will assist students with social, emotional, academic and personal supports to encourage students to reach their academic goals.

## 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](#).

## Student Accounts

Lowell Heiney 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 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 students of all backgrounds with intentional and purposeful on- and off-campus services and activities.

The departments within Student Services include IRIS, Student Life, the University Center, Residence Life, Admissions, International Programs, Financial Aid, Diversity and Inclusion, 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 Success & Engagement

Lowell Heiney Hall, 1<sup>st</sup> Floor • 970.248.1340

Student Success & Engagement (SSE) encompasses different academic support services including Compass (previously PB), GOALS, mentoring, scholarship support services, first generation student support and TRIO SSS (Regular and STEM) among other support services.

SSE takes a personalized approach that is tailored to the individual student through one-on-one interactions with an SSE advisor for support. SSE has both professional Advisors and Peer Academic Coaches who will assist students with all aspects of their academic experience including gaining their academic footing, academic advising, mentoring and identify majors and careers they are interested in pursuing while providing a friendly face on campus that they can go ask any question that they may be having.

Students within the GOALS program are admitted into an Associate's degree upon acceptance to CMU. The GOALS program provides students with support to build skills needed to succeed both in and out of the classroom. The GOALS program supports students to pursue a pathway toward a major and degree best suited for them.

The students within the PB program fall between the Associate and Baccalaureate admission requirements for acceptance to CMU. The PB program gives students the opportunity to pursue a bachelor's degree while receiving additional advising and academic support. The primary role of the OSS is to assist the PB students in developing the skills they need to successfully transition to their desired Baccalaureate program.

## Parking Services

Student Wellness Center 212 & 213  
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). Multiple vehicles can be registered, but only one vehicle may be parked on campus. 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, handicapped 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

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, verification of enrollment, student demographic updates such as change of address, and answering questions about release of information that is protected by federal law. Additional services include certifying degree requirements for graduation, issuing degrees, publishing the academic calendar, and academic room scheduling. For more detailed information on any of the services, please visit the [Registrar's Office](#) 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 department 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 125 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 board offers leadership experiences for students and organizes programs to educate students regarding multiculturalism. 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 IM 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-run 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, hypnotists and speakers. 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 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 who have a valid student I.D. card regardless of the number of credit hours carried.

### 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. 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

All CMU students are eligible for counseling services for a \$10 copay. Students can access and referrals can be made through any office on campus 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 maybe affecting their academic life.

### Empowerment Classes

These classes are designed to support students in making adjustments to life's transitions and the changes in their lives. These classes are based on Cognitive Behavior Therapy (CBT) approaches that focuses on the aspects of mindfulness, emotional regulation, distress tolerance and interpersonal effectiveness.

### Prime for Life Classes (PFL)

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. PFL is an evidenced-based, state approved curriculum for substance abuse prevention and is a harm reduction model that focuses on healthy lifestyle choices.

Behavioral Health Services are provided Monday-Saturday from 8am to 6pm for scheduled appointments. Students can schedule an appointment by stopping by the SWC or by calling 970.644.3740.

## Hours of Operation

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

Rotary Hall • 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 colleges and universities in over 50 countries. 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 Office of International Student Admissions and Programs 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.

## Transfer Services

Admissions Office  
970.248.1232

The Center for Transfer Services, within the Admissions Office, assists students transferring into Colorado Mesa University from other institutions. Services include preliminary transcript evaluation, education planning, transition to academic departments, and resolution of transfer problems. Transfer Services staff is available by appointment and for walk-ins. As part of the Admissions Office, the Center works closely with the Registrar's Office to provide students with information about their transfer credits and how those credits may be applied to the student's intended major.

## TRIO Student Support Services: Regular or STEM

Houston Hall, REGULAR: Room 125 A–D and STEM: In the TLC H114 A-B & 112C  
970.248.1770

Colorado Mesa University has two (2) TRIO Student Support Services (TRIO-SSS) Programs. The Regular SSS Program serves all CMU majors. The STEM SSS program serves: Science, Technology, Engineering (if graduating from CMU), 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 counseling, 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 Student Success and Engagement. For more information, visit the [TRIO Student Support Services \(TRIO-SSS\)](#) website.

## Tutorial Learning Center

Houston Hall, Room 113  
970.248.1392

The Tutorial Learning Center (TLC) provides free walk-in tutoring for a variety of courses and subjects. Students who would like to improve their writing skills, work through math, science, or other technical concepts, review material for any subject, or get one-on-one assistance and support from other successful students are all encouraged to come to the TLC. Qualified peer tutors, recommended by faculty, are trained to help students with their academic endeavors. The central goals of peer tutors are to help students become more independent with their learning and to create opportunities for student success.

## Online Tutoring

Online tutoring is offered for most subjects through TLC/Writing Center App on Mavzone. Tutors work with students through D2L, TEAMS or Zoom.

## 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 our PAVE (Peer Advisors for Veteran Education) program. Applications, to apply for the Veteran Laptop Project, may be picked up if you want to rent a laptop for the semester. For more information, visit the [Veterans Services](#) website.

## WCCC 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 Western Colorado Community College 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 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.

## **Writing Center**

Houston Hall, Room 223  
970.248.2208 or 970.248.1392

The Writing Center serves students across all disciplines and various stages of the writing process. We provide support for students to assimilate into the writing conventions of the university and into their specific academic disciplines. It is free for all CMU students. There is online and in person tutoring, group tutoring and English Language Learner support.



# UNIVERSITY-WIDE ACADEMIC OFFERINGS

- [Academic Honors Programs](#) (p. 56)
- [Early Start Program \(ESP\) Compass Track](#) (p. 56)
- [Freshman Year Initiative \(FYI\) Program](#) (p. 56)
- [Study Abroad](#) (p. 56)
- [Undergraduate Developmental Courses](#) (p. 57)

## 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 s/he is 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.

## Early Start Program (ESP) Compass Track

### Program Description

Colorado Mesa University offers first-year Compass freshmen an opportunity to participate in a program designed specifically to assist students in making a successful transition to college by learning strategies and skills they will need to successfully navigate their first year and beyond. This program, the Early Start Program (ESP) Compass

track is offered to new Compass freshmen prior to the start of each fall semester. For more information, visit the [Early Start Programs website](#).

The Early Start Program Compass track includes completion of the [UNIV 100](#) course. This is a one-credit course designed to help Compass students successfully transition to college life by introducing them to campus resources and teaching them study skills that will aid them in their transition. [UNIV 100](#) is also offered during the fall and spring semesters.

### Contact Information

Admissions Office  
Welcome Center  
970.248.1875

or

Student Success and Engagement  
Lowell Heiny Hall  
970.248.1340

## 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 Programs](#). 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 exchange opportunities through both direct agreements with foreign institutions and through our partnership with the International Student Exchange Program (ISEP), a network of over 150 colleges and universities in over 50 countries. 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 Admissions and Programs

Office Location: Rotary Hall 204

Phone: (970) 248-1802

Email: [studyabroad@coloradomesa.edu](mailto:studyabroad@coloradomesa.edu)

## Undergraduate Developmental Courses

### Program Description

In order 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 090 is a prerequisite for MATH 110 and 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

Library 308

970.248-1248

# 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 the two-thirds 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 his/her 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 his/her 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 complete Change of Schedule form with instructor's signature to IRIS or the Registrar's Office 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 his/her tuition and fees, regardless of whether or not he/she 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 prior to the first day of the session for the course (full semester, late start, modular, or variable length). After the session has begun, the student must submit the [Course Withdraw](#) online form up to the two-thirds 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 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 66 percent, but before 75 percent 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. 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**

Registrar's Office  
Lowell Heiny Hall Room 116  
Colorado Mesa University  
1100 North Avenue  
Grand Junction, CO 81501-3122  
Call 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; see next page). 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 - 30	Freshman
31-60	Sophomore
61-90	Junior
91+	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 s/he wishes 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 passed the required 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 Computer Science, 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

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.” 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 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 Mathematics and Statistics Department 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 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 his or her 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 of Academic Affairs 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 EL 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.

Students who are completing 75 hours of course work will not be permitted to enroll in any additional courses until they have passed both ESSL 290 and ESSL 200. Exceptions to the policy require the written permission of the Assistant Vice President of Academic Affairs or designee.

## Non-Traditional Credit

Non-traditional credit can be earned from sources such as the following:

### 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 a 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.

### 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. College Board Advanced Placement examination scores currently accepted by Colorado Mesa University are: Studio Art-General; Studio Art-Drawing; Art History; Biology; Chemistry; Computer Science A; Computer Science AB; Macroeconomics; Microeconomics; English Literature & Composition; English Language & Composition; French Language; French Literature; German Language; German Literature; Latin-Virgil; Latin Literature; Spanish Language; Spanish Literature; Government & Politics-United States; Government & Politics-

Comparative; US History; European History; World History; Human Geography; Mathematics-Calculus AB; Mathematics-Calculus BC; Music Theory; Physics B; Physics C-Mechanics; Physics C-Electricity & Magnetism; Psychology; and Statistics.

The Registrar's Office will supply information concerning the scores required for earning academic credit in the various subject areas.

## Credit by Examination and Department Challenge Exams

Students attending Colorado Mesa University and Western Colorado Community College may earn college credit by examination in certain subject areas through the College Level Examination Program (CLEP) and DANES 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 Western Colorado Community College 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.

## 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 policy details contact the Registrar's Office or check the CMU website.

## 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 Western Colorado Community College 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 Western Colorado Community College 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. If allowed, the following limits apply:

1. Military credits – maximum of 30 semester credit hours to be used toward lower and upper division courses as deemed appropriate.
2. CLEP, DANTEs & Credit by Examination/Department Challenge Exams – maximum of 30 semester credit hours for a baccalaureate degree, 20 semester credit hours for an Associate of Applied Science degree, 12 semester credit hours for an Associate of Arts or an Associate of Science degree, and 6 semester credit hours for a technical certificate. 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.
3. Advanced Placement – maximum of 30 semester credit hours for a baccalaureate degree, 15 semester credit hours for an associate degree, or six semester credit hours for a technical certificate.
4. International Baccalaureate – The subject exams and score shown on each student's transcript will determine the number of semester credit hours allowed. Maximum of 30 semester credit hours for a baccalaureate degree or 15 semester credit hours for an associate degree.
5. Credit for Prior Learning through Portfolio Assessment – Portfolio assessment 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.
6. Cooperative education, Internships, Practica, etc. – 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.

The total combination of non-traditional credit is limited by academic residency requirements for the degree. 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.

## 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. 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 in Lowell Heiny Hall 107.

## 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 of 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. 742) section or in the catalog for their program year, at the beginning of their time at CMU. They are responsible for reviewing the specific requirements for the degree, minor, and/or certificate being pursued. If enrolled at CMU as a degree-seeking student prior to the current year, students can use the [prior year's program sheets](#) website and choose the appropriate year in the left hand menu. 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.

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  - [Requirements for Associate Degrees](#) (p. 76)
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- [Colorado Statewide Guaranteed Transfer Courses](#) (p. 78)

## Contact

Registrar's Office  
 Lowell Heiny Hall Suite 449  
 Colorado Mesa University  
 1100 North Avenue  
 Grand Junction CO 81501-3122  
 Call 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 program sheet which may be obtained from the department offering the degree they are seeking or in the specific program as listed in [Programs A-Z](#) (p. 742). If enrolled at CMU as a degree-seeking student prior to Summer 2019, use the [prior year's program sheets](#) website and choose the appropriate year in the left hand menu.

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 <sup>1</sup>	December commencement
Fall semester	December or May commencement
Spring semester	May commencement

<sup>1</sup> 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 his or her 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. 742) 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. 742) 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. 742), 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. 742) 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. 742) 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 (communication; 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 (critical thinking);
- 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 the 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 WCCC/CMU.

In both these cases, the Essential Learning Core is complete unless specific requirements are noted in the [Programs A-Z](#) (p. 742) 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. 742).

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 WCCC/CMU, 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. 742), 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 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. 742). 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. 742).

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
<b>English<sup>1</sup></b>		
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	
<b>Mathematics<sup>2</sup></b>		
MATH 110	Mathematical Investigations-GTMA1	3
MATH 113	College Algebra-GTMA1	4
MATH 113R	College Algebra with Review <sup>6</sup>	5
MATH 119	Precalculus Mathematics-GTMA1	5

MATH 119A	Algebra for Calculus <sup>6</sup>	4
MATH 149	Honors Mathematics-GTMA1	3
MATH 151	Calculus I-GTMA1	5
MATH 205	Elements of Mathematics II-GTMA1	3
<b>History</b>		
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
<b>Humanities</b>		
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 231	Non-Western World Literature I-GTAH2	3
ENGL 232	Non-Western World Literature II-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 <sup>3</sup>	3
FLAS 213	Spanish Conversation and Grammar <sup>3</sup>	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
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 <sup>3</sup>	3
<b>Social and Behavioral Sciences</b>		
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 <sup>3</sup>	4
CSCI 100	Computers In Our Society <sup>3</sup>	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 <sup>3</sup>	3
POLS 261	Comparative Politics-GTSS1	3
POLS 270	World Politics <sup>3</sup>	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 120	Technology and Society-GTSS3	3

SOCO 144	Marriage and Families-GTSS3	3	GEOL 111	Principles of Physical Geology-GTSC1	4
SOCO 260	General Sociology-GTSS3	3	& 111L	and Principles of Physical Geology Laboratory-GTSC1 <sup>5</sup>	
SOCO 264	Social Problems-GTSS3	3	GEOL 112	Principles of Historical Geology-GTSC1	4
SPCH 101	Interpersonal Communications <sup>3,4</sup>	3	& 112L	and Principles of Historical Geology Laboratory-GTSC1 <sup>5</sup>	
<b>Fine Arts</b>					
ARTE 101	Two-Dimensional Design-GTAH1	3	GEOL 113	Field-Based Introduction to Physical Geology-GTSC1	4
ARTE 102	Three-Dimensional Design-GTAH1	3	& 113L	and Field-Based Introduction to Physical Geology Laboratory-GTSC1 <sup>5</sup>	
ARTE 103	Digital Art and Design-GTAH1	3	PHYS 100	Concepts of Physics-GTSC2	3
ARTE 115	Art Appreciation-GTAH1	3	PHYS 101	Elementary Astronomy-GTSC2	3
ARTE 118	History of Art, Prehistory to Renaissance-GTAH1	3	PHYS 103	General Astronomy	4
ARTE 119	History of Art, Renaissance to Present-GTAH1	3	& 103L	and General Astronomy Laboratory <sup>5,6</sup>	
DANC 115	Dance Appreciation-GTAH1	3	PHYS 111	General Physics-GTSC1	5
FINE 101	The Living Arts-GTAH1	3	& 111L	and General Physics Laboratory-GTSC1 <sup>5</sup>	
MUSA 220	Music Appreciation-GTAH1	3	PHYS 112	General Physics-GTSC1	5
MUSA 266	History of Popular Music-GTAH1	3	& 112L	and General Physics Laboratory-GTSC1 <sup>5</sup>	
MUSA 267	Jazz History and Literature-GTAH1	3	PHYS 131	Fundamental Mechanics-GTSC1	5
THEA 141	Theatre Appreciation-GTAH1	3	& 131L	and Fundamental Mechanics Laboratory-GTSC1 <sup>5</sup>	
THEA 145	Introduction to Dramatic Literature-GTAH1	3	PHYS 132	Electromagnetism and Optics-GTSC1	5
<b>Natural Sciences</b>					
BIOL 101	General Human Biology-GTSC1	4	& 132L	and Electromagnetism and Optics Laboratory-GTSC1 <sup>5</sup>	
& 101L	and General Human Biology Laboratory-GTSC1 <sup>5</sup>				
BIOL 105	Attributes of Living Systems-GTSC1	4			
& 105L	and Attributes of Living Systems Laboratory-GTSC1 <sup>5</sup>				
BIOL 108	Diversity of Organisms-GTSC1	4			
& 108L	and Diversity of Organisms Laboratory-GTSC1 <sup>5</sup>				
BIOL 250	Introduction to Microbiology-GTSC1	4			
& 250L	and Introduction to Microbiology Laboratory-GTSC1 <sup>5</sup>				
CHEM 100	Chemistry and Society-GTSC2	3			
CHEM 111	Introduction to Concepts of General Chemistry <sup>6</sup>	3			
CHEM 121	Principles of Chemistry-GTSC1	5			
& 121L	and Principles of Chemistry Laboratory-GTSC1 <sup>5</sup>				
CHEM 122	Principles of Organic Chemistry-GTSC1	5			
& 122L	and Principles of Organic Chemistry Laboratory-GTSC1 <sup>5</sup>				
CHEM 131	General Chemistry I-GTSC1	5			
& 131L	and General Chemistry Laboratory I-GTSC1 <sup>5</sup>				
CHEM 132	General Chemistry II-GTSC1	5			
& 132L	and General Chemistry Laboratory II-GTSC1 <sup>5</sup>				
CHEM 151	Engineering Chemistry-GTSC1	5			
& 151L	and Engineering Chemistry Laboratory-GTSC1 <sup>5</sup>				
ENVS 101	Introduction to Environmental Science-GTSC2	3			
ENVS 103	Field-Based Introduction to Environmental Science-GTSC1	4			
& 103L	and Field-Based Introduction to Environmental Science Laboratory-GTSC1 <sup>5</sup>				
GEOL 100	Survey of Earth Science-GTSC2	3			
GEOL 103	Weather and Climate-GTSC2	3			
GEOL 104	Oceanography-GT-SC2	3			
GEOL 105	Geology of Colorado-GTSC2	3			
GEOL 106	Introduction to Dinosaurs-GT-SC2	3			
GEOL 107	Natural Hazards and Environmental Geology-GTSC2	3			
GEOL 108	Water, People, and Environment - GTSC2	3			

- <sup>1</sup> The combination of ENGL 111 English Composition I-GTCO1 (3 s.h.) and ENGL 219 Introduction to Professional Writing-GTCO3 (3 s.h.) does not meet the Essential Learning English requirement.
- <sup>2</sup> Students seeking the BA, BFA, BM, BME or BSW degree must complete MATH 110 Mathematical Investigations-GTMA1 (3 s.h.) 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 College Algebra-GTMA1 (4 s.h.) or 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.
- <sup>3</sup> Not approved for gtPathways.
- <sup>4</sup> Cannot be used to substitute for ESSL 200 of the Essential Learning Capstone Requirement.
- <sup>5</sup> 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.
- <sup>6</sup> Pending review by gtPathways.

## 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 <sup>1</sup>	3
ESSL 200	Essential Speech	1

<sup>1</sup> See the Maverick Milestone policies included in the General Undergraduate Academic Policies section.

## Wellness Requirement

Each student must take KINE 100 Health and Wellness (1 s.h.) 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. 742).

The only exception to taking KINE 100 Health and Wellness (1 s.h.) 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 KINA courses (excluding varsity athletics) may be taken as electives toward graduation with a baccalaureate degree.

Each course is scheduled for an eight-week module and 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. Prerequisites for all "Intermediate" or part II classes: the corresponding beginning course or instructor consent.

Courses approved for the Wellness requirement for baccalaureate degrees are as follows:

Code	Title	Semester Credit Hours
KINE 100	Health and Wellness	1
KINA 1XX	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 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. 742), 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 1XX, 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 1XX, 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.
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
<b>Arts and Humanities:</b>		
GT-AH1	Arts and Expression	
GT-AH2	Literature and Humanities	
GT-AH3	Ways of Thinking	
GT-AH4	World Languages <sup>1</sup>	
<b>Communication:</b>		
GT-CO1	Introductory Writing	
GT-CO2	Intermediate Writing	
GT-CO3	Advanced Writing	
<b>Mathematics:</b>		
GT-MA1 <sup>2</sup>		
<b>Natural and Physical Sciences:</b>		
GT-SC1	Lecture Course with Required Laboratory	
GT-SC2	Lecture Course without Required Laboratory	
<b>Social and Behavioral Sciences:</b>		
GT-HI1	History	
GT-SS1	Economic or Political Systems	

GT-SS2	Geography
GT-SS3	Human Behavior, Culture, or Social Frameworks

<sup>1</sup> Intermediate, i.e., 200-level.

<sup>2</sup> Note: no subgroups.

All courses (except as noted) listed under the [Essential Learning Core Course Requirements](#) (p. 72) 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. 759) 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. 79)
- [Graduate Degree Requirements](#) (p. 81)
- [Graduation Checklist](#) (p. 83)
- [Research Activities](#) (p. 83)
- [Graduate Certificate in Applied Mathematics](#) (p. 84)
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- [Initial Teacher Licensure](#) (p. 85)
- [Master of Arts in Criminal Justice Leadership and Policy](#) (p. 85)
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- [Master of Science in Athletic Training](#) (p. 87)
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- [Master of Social Work](#) (p. 88)
- [Doctor of Nursing Practice](#) (p. 89)
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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. 93) or [Programs A-Z](#) (p. 742) 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 he or she is 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](mailto: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 with the [graduate program](#) as well as the [Office of International Student Admissions and Programs](#).

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. In most cases, course descriptions or syllabi are required 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 test scores minimums.
3. 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 who do not already have coverage will be enrolled in CMU's international student group insurance plan.
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 Programs 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 his or her 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 his/her 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.

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 he or she wishes 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](mailto: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

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. 335).

## Graduate Certificate in Rhetoric and Literary Studies

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 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. 343).

## Graduate Certificate in Social Science

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  
Lowell Heiny Hall 413  
970.248.1696

## Requirements

See [Social Science \(Graduate Certificate\)](#) (p. 344) 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. 85) 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. 336)
- [Exceptional Learner/Special Education \(EDSE\) \(Graduate Certificate\)](#) (p. 338)

## Initial Teacher Licensure

Students already holding a Bachelor's degree 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 3-4 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 is incorporated in the MA, Education degree, allowing a student to complete teacher licensure and a master's degree in five semesters. 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.

First steps, prior to formal application, require review of bachelor's degree or other previous coursework transcripts. Leveling courses may be required 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. 340)
- [Education: Initial Teacher Licensure - Elementary \(MA, Education\)](#) (p. 322)

## Secondary ITL

- [Education: Initial Teacher Licensure - Secondary \(Graduate Certificate\)](#) (p. 341)
- [Education: Initial Teacher Licensure - Secondary \(MA, Education\)](#) (p. 324)

## K-12 Physical Education ITL

- [Education: Initial Teacher Licensure K-12 Physical Education \(Graduate Certificate\)](#) (p. 328)
- [Education: Initial Teacher Licensure K-12 Physical Education \(MAEd\)](#) (p. 326)

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

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 six 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

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).

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 Applied Mathematics, Educational Leadership (EDLD), Rhetoric and Literary Studies, Social Sciences, 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.

- [Applied Mathematics \(MAEd\)](#) (p. 317)
- [Educational Leadership \(EDLD\) \(MA, Education\)](#) (p. 319)
- [Initial Teacher Licensure - Secondary \(MA, Education\)](#) (p. 324)
- [Initial Teacher Licensure - Elementary \(MA, Education\)](#) (p. 322)
- [Initial Teacher Licensure - K-12 Physical Education \(MA, Education\)](#) (p. 326)
- [Rhetoric and Literary Studies \(MAEd\)](#) (p. 331)
- [Social Science \(MAEd\)](#) (p. 333)
- [Teaching and Leadership \(MA, Education\)](#) (p. 329)
- [Exceptional Learner/Special Education \(EDSE\) \(MA, Education\)](#) (p. 320)

## 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 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 will be required to complete leveling courses.

For information about admission to the MBA Program, please see [department specific requirements](#).

Candidates not meeting all the specific requirements may be admitted under conditional status.

## MBA for Those Without a Business Degree

The opportunity for study is available for the non-business degree holder. For these students, a series of leveling courses will be identified individualized to each student.

## Leveling Courses

An applicant must demonstrate—through academic transcripts, CLEP, MOOC, or a formal test-out process—an appropriate background in Financial Accounting, Business Information Technology, Managerial Finance, Principles of Management, Principles of Marketing, and Business Statistics. An applicant without this background will be required to score at a sufficient level on an entrance qualifying examination administered by the CMU MBA Office. The exam covers the topics listed above. A student can prepare for the exam through independent study based on a program-supplied study guide. CMU courses that provide appropriate background are: ACCT 201, CISB 101, FINA 301, MANG 201, MARK 231, and CISB 241 or STAT 241. This requirement must be met prior to taking related coursework.

## 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.

## Requirements

See [Business Administration \(MBA\)](#) (p. 178) 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. 759) section of this catalog in the prefix areas of [Accounting \(ACCT\)](#) (p. 760), [Business Administration \(BUGB\)](#) (p. 784), [Computer Information Systems \(CISB\)](#) (p. 789), [Economics \(ECON\)](#) (p. 805), [Education \(EDUC\)](#) (p. 806), [Entrepreneurship \(ENTR\)](#) (p. 824), [Finance \(FINA\)](#) (p. 829), [Human Resource Management \(HRMA\)](#) (p. 846), [Kinesiology \(KINE\)](#) (p. 847), [Management \(MANG\)](#) (p. 854), and [Marketing \(MARK\)](#) (p. 856).

## Master of Physician Assistant Studies

The Master of Physician Assistant Studies (MPAS) Program consists of didactic and clinical academic work over the course of 27 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) and will be able to apply for licensure through the Board of Medical Examiners in the state in which they wish to practice medicine. The MPAS Program has been granted **Accreditation-Provisional** status by the Accreditation Review Commission on Education for the Physician Assistant (ARC-PA). Accreditation-Provisional is an accreditation status granted when the plans and resource allocation, if fully implemented as planned, of a proposed program that has not yet enrolled students appear to demonstrate the program's ability to meet the ARC-PA *Standards* or when a program holding Accreditation-Provisional status appears to demonstrate continued progress in complying with the *Standards* as it prepares for the graduation of the first class (cohort) of students.

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. 617).

## Master of Science in Athletic Training Program Overview

The Master of Science in Athletic Training program is a two-year, 38 credit hour, master's degree, delivered via in-person, online, and hybrid formats.

The degree employs course content that focuses on the competencies needed to practice both the art and science of athletic training, leading to compassionate and exceptional care meeting the regional needs of western Colorado and beyond. In alignment with the mission of the Department of Kinesiology, the program emphasizes promoting wellness and physical activity across a diverse population of patients.

Students will learn the importance of self-care and fostering resilience and wellness in themselves, in order to extend better care to others.

### 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. 147)

## Master of Science in Nursing

The Master of Science in Nursing (MSN) program prepares nurses for roles as family nurse practitioners (FNPs), adult-gerontology nurse practitioners (AGNPs), or nurse educators (NEs) in healthcare or academic settings. 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), Quality and Safety Education for Advanced Nursing Practice (QSEN), 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. Graduates of the MSN NE track are eligible to take the national certified nurse educator (CNE) examination. 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 students choose one of three tracks as their substantive area of study: FNP, AGNP, or NE. 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 standardized clinical exams (OSCEs), and graduate program student intensive (GPSI) sessions are held in both in-person and online formats.

MSN coursework, 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. Students in the MSN FNP track are required to complete a minimum of 700 direct care hours. The AGNP track includes coursework in primary care (adults, older adults) and care of rural/underserved populations. Students in the AGNP track are required to complete a minimum of 600 direct care hours. The NE track includes coursework in curriculum evaluation and design, technology in the classroom, and teaching strategies. Students in the MSN NE cognate are required to complete a minimum of 250 clinical hours, 90 of which must be in direct care. Clinical rotations vary by track, but may include academic, inpatient, long-term care, primary care, and community-based sites.

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 variety of projects. 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

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 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. Up to 18 credits of applicable courses, with a grade of "B" or higher, may be transferred from an accredited institution. Additional information may be found in the Transfer Credit section.

## Requirements

The [Department of Health Sciences](#) offers two Master of Science in Nursing cognate options. See the programs below for complete overviews of all requirements, important information, and suggested course sequencing.

- [Family Nurse Practitioner, Nursing \(MSN\)](#) (p. 588)
- [Nursing Education, Nursing \(MSN\)](#) (p. 590)

## Master of Science in Occupational Therapy

The MS Occupational Therapy program prepares students with a baccalaureate degree to become qualified occupational therapists. The didactic portion of this program includes four terms of on-campus coursework followed by two terms of experiential and hybrid coursework. The program requires successful completion of academic courses and integrated fieldwork concluding with two, 12-week offsite fieldwork experiences.

## Requirements

A cumulative minimum grade point average (GPA) of 3.0 in undergraduate coursework and minimum 2.7 GPA for prerequisite coursework is required from an accredited university. 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.

For additional details on admission requirements, please visit the [Department of Kinesiology](#) page of the university 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 he/she has evaluated the applicant's current or prior work.

### Conditional Admission Requirements

- Students not satisfying the unconditional admission requirements may be conditionally admitted to the program pending satisfactory completion of the first 9 semester hours with a 3.0 grade point average.
- Students not satisfying conditional admission requirements will be dropped from the program for one calendar year, after which time the student must petition for readmission.

## Program Requirements

For a complete list of program requirements, please see the [program sheet](#) (p. 676).

## Master of Social Work Overview

The MSW program is in the final approval stage. Once HLC approval is obtained, students will be able to enroll into the MSW program. Once HLC approval is received, the CSWE approval process will begin.

"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.

## 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 \(MSW\)](#)
- [Social Work: Foundation \(MSW\)](#)

## 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 FNP's 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). Courses are delivered via an on-line format allowing students to reside in their home communities. Objective standardized 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, 800 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, 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

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. Up to 18 credits of applicable courses, with a grade of "B" or higher, may be transferred from an accredited institution. Additional information may be found in the Transfer Credit section.

## Requirements Program of Study

See [Doctor of Nursing Practice - Family Nurse Practitioner \(DNP-FNP\)](#) (p. 584) for information on program requirements.

## Doctor of Physical Therapy

**The Physical Therapy Program is currently under development. Please contact Academic Affairs/Kinesiology for more details.**

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).

Graduation from a physical therapist education program accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE), 1111 North Fairfax Street, Alexandria, VA 22314; phone: 703-706-3245; email: [accreditation@apta.org](mailto:accreditation@apta.org) is necessary for eligibility to sit for the licensure examination, which is required in all states.

Colorado Mesa University is seeking accreditation of a new physical therapist education program from CAPTE. The program is planning to submit an Application for Candidacy, which is the formal application required in the pre-accreditation stage, on December 1, 2022. Submission of this document does not assure that the program will be granted Candidate for Accreditation status. Achievement of Candidate for Accreditation status is required prior to implementation of the professional phase of the program; therefore, no students may be enrolled in professional courses until Candidate for Accreditation status has been achieved. Further, though achievement of Candidate for Accreditation status signifies satisfactory progress toward accreditation, it does not assure that the program will be granted accreditation.

# 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. 91)
- [Elementary Education Licensure – Undergraduate](#) (p. 91)
- [Secondary Education Licensure – Undergraduate](#) (p. 91)
- [K-12 Education Licensure – Undergraduate](#) (p. 92)
- [Graduate Programs in Education](#) (p. 92)

## Contact

Center for Teacher Education  
Colorado Mesa University  
Dominguez Hall, Suite 109  
970.248.1786

[Center for Teacher Education Website](#)

## 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. 302)

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. 471)
  - [Education: Elementary Teaching, Mathematics, Liberal Arts \(BA\)](#) (p. 475)
  - [Education: Elementary Teaching, Social Science, Liberal Arts \(BA\)](#) (p. 478)

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.

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. 169)
  - [Education: Secondary Education, English \(BA\)](#) (p. 360)
  - [Education: Secondary Education, Geosciences \(BS\)](#) (p. 407)
  - [Education: Secondary Education, History \(BA\)](#) (p. 431)
  - [Education: Secondary Education, Mathematics \(BS\)](#) (p. 521)
  - [Education: Secondary Education, Spanish \(BA\)](#) (p. 663)

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. 131)
  - [Education: K-12 Education, Kinesiology \(BA\)](#) (p. 460)
  - [Education: K-12 Music Education \(BME\)](#) (p. 553)

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: Applied Mathematics \(MAEd\)](#) (p. 317)
- [Education: Educational Leadership \(EDLD\) \(Graduate Certificate\)](#) (p. 336)
- [Education: Educational Leadership \(EDLD\) \(MA, Education\)](#) (p. 319)
- [Education: Exceptional Learner/Special Education \(EDSE\) \(Graduate Certificate\)](#) (p. 338)

- [Education: Exceptional Learner/Special Education \(EDSE\) \(MA, Education\)](#) (p. 320)
- [Education: Initial Teacher Licensure - Elementary \(Graduate Certificate\)](#) (p. 340)
- [Education: Initial Teacher Licensure - Elementary \(MA, Education\)](#) (p. 322)
- [Education: Initial Teacher Licensure - Secondary \(Graduate Certificate\)](#) (p. 341)
- [Education: Initial Teacher Licensure - Secondary \(MA, Education\)](#) (p. 324)
- [Education: Initial Teacher Licensure K-12 Physical Education \(Graduate Certificate\)](#) (p. 328)
- [Education: Initial Teacher Licensure K-12 Physical Education \(MAEd\)](#) (p. 326)
- [Education: Rhetoric and Literary Studies \(MAEd\)](#) (p. 331)
- [Education: Social Science \(MAEd\)](#) (p. 333)
- [Education: Teaching and Leadership \(EDTL\)](#) (p. 329) [\(MA, Education\)](#) (p. 329)

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)

# AREAS OF STUDY

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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.

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## 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 degree 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

Department of Business  
Dominguez Hall 301  
970.248.1778

## Programs of Study Bachelors/Minors

- [Accounting \(Minor\)](#) (p. 100)
- [Bachelor of Science in Accounting + Master of Business Administration \(3+2\)](#) (p. 95)
- [General Accounting, Accounting \(BS\)](#) (p. 95)
- [Public Accounting, Accounting \(BS\)](#) (p. 98)

## 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

### About This Major . . .

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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 113	College Algebra-GTMA1 <sup>2</sup>	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>3</sup>		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

<sup>2</sup> This is a 4 credit course. 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.

<sup>3</sup> 7 semester hours, one course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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 101	Business Information Technology	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
<b>Total Semester Credit Hours</b>		<b>27</b>

## Program Specific Degree Requirements

(52 semester hours, must pass each course with a grade of "C" or higher.)

Code	Title	Semester Credit Hours
<b>Core Courses</b>		
ACCT 321	Intermediate Accounting I	5
ACCT 322	Intermediate Accounting II	4
ACCT 331	Cost Accounting	3
ACCT 360	Professional Preparation I	1
ACCT 392	Accounting Information Systems	3
ACCT 401	Governmental Accounting	3
BUGB 349	Legal Environment of Business	3
or BUGB 351	Business Law I	
FINA 301	Managerial Finance	3
MANG 301	Organizational Behavior	3
MARK 231	Principles of Marketing	3
<b>Concentration Courses</b>		
<i>Accounting</i>		
Select 9 semester hours of the following:		9
ACCT 350	Ethics for Accounting Professionals	
ACCT 393	Cooperative Education	
ACCT 396	Topics <sup>1</sup>	
ACCT 402	Advanced Accounting	
ACCT 441	Individual Income Tax	
ACCT 442	Advanced Tax and Tax Research	
ACCT 470	Fraud and Forensic Accounting	
ACCT 493	Cooperative Education	
<i>Business</i>		

*Business*

MANG 491	Business Strategy	3
Select 9 additional hours from upper division courses with the prefix of BUGB, CISB, ECON, ENTR, FINA, HMG, HRMA, MANG, or MARK		9
<b>Total Semester Credit Hours</b>		<b>52</b>

<sup>1</sup> 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
<b>Total Semester Credit Hours</b>		<b>4</b>

## Suggested Course Plan

### First Year

Code	Title	Semester Credit Hours
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>14</b>

### Second Year

Code	Title	Semester Credit Hours
<b>Fall Semester</b>		
ACCT 201	Principles of Financial Accounting	3
CISB 101	Business Information Technology	3
MANG 201	Principles of Management	3
ECON 201	Principles of Macroeconomics-GTSS1	3
CISB 241 or STAT 241	Introduction to Business Analysis or Introduction to Business Analysis	3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>

### Third Year

Code	Title	Semester Credit Hours
<b>Fall Semester</b>		
ACCT 321	Intermediate Accounting I	5
ACCT 331	Cost Accounting	3

BUGB 349	Legal Environment of Business	3
MARK 231	Principles of Marketing	3
<b>Semester Credit Hours</b>		<b>14</b>

### Spring Semester

ACCT 322	Intermediate Accounting II	4
Essential Learning - Natural Sciences with Lab		4
ACCT 360	Professional Preparation I	1
ACCT 392	Accounting Information Systems	3
Accounting Concentration Course		3
<b>Semester Credit Hours</b>		<b>15</b>

### Fourth Year

#### Fall Semester

ACCT 401	Governmental Accounting	3
FINA 301	Managerial Finance	3
MANG 301	Organizational Behavior	3
Accounting Concentration Course		3
General Electives		3
<b>Semester Credit Hours</b>		<b>15</b>

#### Spring Semester

MANG 491	Business Strategy	3
Accounting Concentration Course		3
Business Concentration Course (3 courses)		9
<b>Semester Credit Hours</b>		<b>15</b>
<b>Total Semester Credit Hours</b>		<b>120</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his 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

### About This Major . . .

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
<b>English <sup>1</sup></b>		
ENGL 111	English Composition I-GTC01	3
ENGL 112	English Composition II-GTC02	3
<b>Mathematics <sup>1</sup></b>		
MATH 113	College Algebra-GTMA1 <sup>2</sup>	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences <sup>3</sup></b>		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

<sup>2</sup> This is a 4 credit course. 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.

<sup>3</sup> 7 semester hours, one course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone <sup>1</sup></b>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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 101	Business Information Technology	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
<b>Total Semester Credit Hours</b>		<b>27</b>

## Program Specific Degree Requirements

(55 semester hours, must pass each course with a grade of "C" or higher.)

Code	Title	Semester Credit Hours
<b>Core Courses</b>		
ACCT 321	Intermediate Accounting I	5
ACCT 322	Intermediate Accounting II	4
ACCT 331	Cost Accounting	3
ACCT 360	Professional Preparation I	1
ACCT 392	Accounting Information Systems	3
ACCT 401	Governmental Accounting	3
BUGB 349	Legal Environment of Business	3
or BUGB 351	Business Law I	
FINA 301	Managerial Finance	3
MANG 301	Organizational Behavior	3
MARK 231	Principles of Marketing	3
<b>Concentration Courses</b>		
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
BUGB 352	Business Law II	3
<b>Total Semester Credit Hours</b>		<b>55</b>

## 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
<b>Total Semester Credit Hours</b>		<b>1</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
ENGL 111	English Composition I-GTC01	3
MATH 113	College Algebra-GTMA1	4

Essential Learning - Fine Arts		3
Essential Learning - Natural Science		3
Essential Learning - Social/Behavioral Science		3
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>14</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
ACCT 201	Principles of Financial Accounting	3
CISB 101	Business Information Technology	3
MANG 201	Principles of Management	3
ECON 201	Principles of Macroeconomics-GTSS1	3
CISB 241	Introduction to Business Analysis	3
or STAT 241	or Introduction to Business Analysis	
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
ACCT 321	Intermediate Accounting I	5
ACCT 331	Cost Accounting	3
BUGB 349	Legal Environment of Business	3
FINA 301	Managerial Finance	3
MARK 231	Principles of Marketing	3
<b>Semester Credit Hours</b>		<b>17</b>
<b>Spring Semester</b>		
ACCT 322	Intermediate Accounting II	4
Essential Learning - Natural Science with Lab		4
ACCT 392	Accounting Information Systems	3
BUGB 352	Business Law II	3
ACCT 350	Ethics for Accounting Professionals	3
<b>Semester Credit Hours</b>		<b>17</b>
<b>Fourth Year</b>		
<b>Fall Semester</b>		
ACCT 401	Governmental Accounting	3
ACCT 411	Auditing I	3
ACCT 441	Individual Income Tax	4
MANG 301	Organizational Behavior	3
<b>Semester Credit Hours</b>		<b>13</b>
<b>Spring Semester</b>		
ACCT 412	Auditing II	3
ACCT 402	Advanced Accounting	3
ACCT 442	Advanced Tax and Tax Research	5
ACCT 360	Professional Preparation I	1
<b>Semester Credit Hours</b>		<b>12</b>
<b>Total Semester Credit Hours</b>		<b>120</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Accounting (Minor)

Minor: Accounting  
Program Code: M135

## About This Minor. . .

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

(24 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	5
ACCT 322	Intermediate Accounting II	4
ACCT 331	Cost Accounting	3
ACCT Elective at the 300 or 400 level		3
ACCT Elective at the 300 or 400 level		3
<b>Total Semester Credit Hours</b>		<b>24</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 her/his responsibility to consult the Registrar's Office regarding next steps.

## Addiction Studies

### Program Description

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  
Lowell Heiny Hall 413  
970.248.1696

## Programs of Study Certificates

- [Addiction Studies \(Professional Certificate\)](#) (p. 102)

# Addiction Studies (Professional Certificate)

Award: Professional Certificate  
 Program of Study: Addiction Studies  
 Program Code: 1711

## About This Program. . .

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 critical thinking, communication fluency, quantitative fluency, and specialized knowledge/applied learning. 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

(16 semester hours)

Code	Title	Semester Credit Hours
<b>Required Courses</b>		
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 499	Internship (1-3 credit hours each enrollment for a total of 10 credit hours)	10
<b>Total Semester Credit Hours</b>		<b>16</b>

## Suggested Course Plan Fall Semester Cohort

<b>First Year</b>		
<b>Fall Semester</b>		<b>Semester Credit Hours</b>
ADAP 499	Internship	2
<b>Semester Credit Hours</b>		<b>2</b>
<b>Fall Semester First Mod</b>		
ADAP 301	Foundations of Addictions Counseling	1
<b>Semester Credit Hours</b>		<b>1</b>
<b>Fall Semester Second Mod</b>		
ADAP 350	Cultural and Ethical Issues in Addictions Treatment	1
<b>Semester Credit Hours</b>		<b>1</b>
<b>Spring Semester J-Term</b>		
ADAP 380	Pharmacology and Addictions	1
ADAP 499	Internship	3
<b>Semester Credit Hours</b>		<b>4</b>
<b>Spring Semester First Mod</b>		
ADAP 401	Special Populations and Addictions	1
<b>Semester Credit Hours</b>		<b>1</b>
<b>Spring Semester Second Mod</b>		
ADAP 420	Addiction Counseling Approaches	1
<b>Semester Credit Hours</b>		<b>1</b>
<b>Summer Semester</b>		
ADAP 450	Addictions Assessment and Group Counseling (First session of summer)	1
ADAP 499	Internship (First session of summer)	1
ADAP 499	Internship (Second session of summer)	1
<b>Semester Credit Hours</b>		<b>3</b>
<b>Second Year</b>		
<b>Fall Semester First Mod</b>		
ADAP 499	Internship	2
<b>Semester Credit Hours</b>		<b>2</b>
<b>Spring Semester J-Term</b>		
ADAP 499	Internship	1
<b>Semester Credit Hours</b>		<b>1</b>
<b>Total Semester Credit Hours</b>		<b>16</b>

## Spring Semester Cohort

<b>First Year</b>		
<b>Spring Semester</b>		<b>Semester Credit Hours</b>
ADAP 499	Internship	2
<b>Semester Credit Hours</b>		<b>2</b>
<b>Spring Semester First Mod</b>		
ADAP 301	Foundations of Addictions Counseling	1
<b>Semester Credit Hours</b>		<b>1</b>
<b>Spring Semester Second Mod</b>		
ADAP 350	Cultural and Ethical Issues in Addictions Treatment	1
<b>Semester Credit Hours</b>		<b>1</b>
<b>Summer Semester</b>		
ADAP 380	Pharmacology and Addictions (First session of summer)	1
ADAP 499	Internship (First session of summer)	1

ADAP 499	Internship (Second session of summer)	1
<b>Semester Credit Hours</b>		<b>3</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
ADAP 499	Internship	2
<b>Semester Credit Hours</b>		<b>2</b>
<b>Fall Semester First Mod</b>		
ADAP 401	Special Populations and Addictions	1
<b>Semester Credit Hours</b>		<b>1</b>
<b>Fall Semester Second Mod</b>		
ADAP 420	Addiction Counseling Approaches	1
<b>Semester Credit Hours</b>		<b>1</b>
<b>Spring Semester J-Term</b>		
ADAP 450	Addictions Assessment and Group Counseling	1
ADAP 499	Internship	3
<b>Semester Credit Hours</b>		<b>4</b>
<b>Summer Semester</b>		
ADAP 499	Internship	1
<b>Semester Credit Hours</b>		<b>1</b>
<b>Total Semester Credit Hours</b>		<b>16</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.



If your petition for graduation is denied, it will be your responsibility to apply for graduation in a subsequent semester. Your "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

Office of Student Services  
WCCC, Bishop B102  
2508 Blichmann Avenue  
[970.255.2670](tel:970.255.2670)

### Programs of Study

#### Associates

- [Agriculture Science \(AS\)](#) (p. 104)

## Agriculture Science (AS)

Degree: Associate of Science  
Major: Agricultural Science  
Program Code: 2341

### About This Major . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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 (communication fluency).
2. Apply Mathematical and applied physics concepts for industry to meet employment requirements (quantitative fluency).
3. Research, evaluate, synthesize and apply information/data relevant to business, sciences, and technical careers (specialized knowledge).

4. Demonstrate knowledge of terminology, symbols, business practices, and principles and application of associated technical skills (critical thinking).
5. Perform the necessary applied skill sets to fulfill the needs of entry level employment (applied learning).
6. Demonstrate ethical, civic, and work place responsibility as part of 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 or WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>English <sup>1</sup></b>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics <sup>1</sup></b>		
MATH 110	Mathematical Investigations-GTMA1	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences <sup>2</sup></b>		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> One course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Total Semester Credit Hours</b>		<b>2</b>

## Program Specific Degree Requirements

(24 semester hours, must earn a "C" or better in each course.)

Code	Title	Semester Credit Hours
<b>Agriculture Courses</b>		
AGRS 100	Practical Crop Production	3
AGRS 100L	Practical Crop Production Laboratory	1
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
<b>Restricted Electives</b>		

Select at least 7 semester hours from the following list <sup>1</sup> 7

<b>Animal Science Courses</b>		
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	
AGRS 296	Topics:	
<b>Soil and Crop Science Courses</b>		
ACCT 201	Principles of Financial Accounting	
AGRS 103	Introduction to Entomology	
AGRS 103L	Introduction to Entomology Laboratory	
AGRS 110	Integrated Pest Management	
AGRS 210	Agricultural Marketing	
AGRS 260	Plant Propagation	
AGRS 296	Topics:	
PHYS 100	Concepts of Physics-GTSC2	
<b>Agriculture Business Courses</b>		
AGRS 208	Agricultural Finance	
AGRS 210	Agricultural Marketing	
CISB 101	Business Information Technology	
<b>Agriculture Education Courses</b>		
AGRS 210	Agricultural Marketing	
AGRS 225	Feeds and Feeding	
AGRS 118	Farm Structures and Green Houses	
<b>Total Semester Credit Hours</b>		<b>24</b>

<sup>1</sup> See advisor for recommended tracks.

## General Electives

(3 semester hours)

Code	Title	Semester Credit Hours
Select electives		3
<b>Total Semester Credit Hours</b>		<b>3</b>

## Suggested Course Plan

First Year		Semester Credit Hours
<b>Fall Semester</b>		
AGRS 100 & 100L	Practical Crop Production and Practical Crop Production Laboratory	4
AGRS 105	Animal Science	3
ENGL 111	English Composition I-GTCO1	3
Essential Learning - Natural Science with lab		4
KINE 100	Health and Wellness	1
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
Restricted Elective		3
Essential Learning - Natural Science		3
General Elective		3
ENGL 112	English Composition II-GTCO2	3

MATH 110	Mathematical Investigations-GTMA1	3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
AGRS 205	Farm and Ranch Management	3
KINA Activity		1
Essential Learning - Fine Arts		3
Restricted Elective		1
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - Social and Behavioral Sciences		3
<b>Semester Credit Hours</b>		<b>14</b>
<b>Total Semester Credit Hours</b>		<b>60</b>

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 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

# 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. 106)
- [Animation, Film, Photography and Motion Design \(BFA\)](#) (p. 107)

## Animation (Minor)

### Overview

Minor: Animation  
Program Code: M204

### About This Minor. . .

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

(24 Semester Hours)

Code	Title	Semester Credit Hours
ARTA 222	Principles of Digital Photography	3
ARTA 225	Principles of Animation	3
ARTA 323	Character Design and Story Concepts <sup>1</sup>	3
ARTA 324	Animation Production <sup>1</sup>	3
ARTA 327	Sound Design and Post-Production <sup>1</sup>	3
ARTA 426	Advanced Motion Studio	3
ARTH 331	History of the Moving Image <sup>1</sup>	3
THEA 150	Fundamentals of Acting	3
<b>Total Semester Credit Hours</b>		<b>24</b>

<sup>1</sup> This course has a prerequisite that must be taken prior to this course, which could increase the total credits for the minor to 36 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 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 her/his 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 her/his responsibility to consult the Registrar's Office regarding next steps.

## Animation, Film, Photography and Motion Design (BFA)

Degree: Bachelor of Fine Arts

Major: Animation, Film, Photography, and Motion Design

Program Code: 3284

## About This Major . . .

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
<b>English <sup>1</sup></b>		
ENGL 111	English Composition I-GTC01	3
ENGL 112	English Composition II-GTC02	3
<b>Mathematics <sup>1</sup></b>		
MATH 110	Mathematical Investigations-GTMA1	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences <sup>2</sup></b>		
Select one Natural Sciences course with a lab		4
Select one Natural Sciences course		3
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> One course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone <sup>1</sup></b>		
ESSL 200	Essential Speech	1
ESSL 290	Maverick Milestone	3
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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
<b>Total Semester Credit Hours</b>		<b>15</b>

## Program Specific Degree Requirements

(51 semester hours, must pass each course with a grade of "C" or higher.)

Code	Title	Semester Credit Hours
<b>Art History Course</b>		
ARTH 331	History of the Moving Image	3
<b>Animation, Film, Photography &amp; Motion Design Courses</b>		
ARTA 123	Lights! Camera! Action!	3
ARTA 222	Principles of Digital Photography	3
ARTA 223	Image and Motion	3
ARTA 224	Principles of Film	3
ARTA 225	Principles of Animation	3
ARTA 322	Intermediate Photography	3
ARTA 323	Character Design and Story Concepts	3
ARTA 324	Animation Production	3
ARTA 325	3D Animation	3
ARTA 326	Intermediate Filmmaking	3
ARTA 327	Sound Design and Post-Production	3
ARTA 422	Advanced Photography and Studio Lighting	3
ARTA 424	Animation, Film, and Photography Studio I	3
ARTA 425	Animation, Film, and Photography Studio II	3
ARTA 426	Advanced Motion Studio	3
ARTA 427	Portfolio and Demo Reel	3
<b>Total Semester Credit Hours</b>		<b>51</b>

## 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. 17 semester hours, 4 of which must be Upper Division.)

Code	Title	Semester Credit Hours
Select electives		17
<b>Total Semester Credit Hours</b>		<b>17</b>

## Suggested Course Plan

First Year		Semester Credit Hours
<b>Fall Semester</b>		
ENGL 111	English Composition I-GTCO1	3
ARTE 118	History of Art, Prehistory to Renaissance-GTAH1	3
ARTE 101	Two-Dimensional Design-GTAH1 <sup>1</sup>	3
	or ARTE 102	or Three-Dimensional Design-GTAH1
ARTA 123	Lights! Camera! Action!	3
Essential Learning - Social and Behavioral Sciences		3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
ENGL 112	English Composition II-GTCO2	3
MATH 110	Mathematical Investigations-GTMA1	3
ARTE 101	Two-Dimensional Design-GTAH1 <sup>1</sup>	3
	or ARTE 102	or Three-Dimensional Design-GTAH1
ARTE 119	History of Art, Renaissance to Present-GTAH1	3
Essential Learning - History		3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
ARTS 151	Foundation Drawing I	3
ARTA 222	Principles of Digital Photography <sup>1</sup>	3
	or ARTA 223	or Image and Motion
ARTA 225	Principles of Animation	3
KINE 100	Health and Wellness	1
KINA Activity		1
Essential Learning - Natural Science with lab		4
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
ARTA 222	Principles of Digital Photography <sup>1</sup>	3
	or ARTA 223	or Image and Motion
ARTA 224	Principles of Film	3
Essential Learning - Natural Science		3
Essential Learning - Humanities		3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Semester Credit Hours</b>		<b>16</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
ARTH 331	History of the Moving Image	3
ARTA 324	Animation Production	3
ARTA 322	Intermediate Photography	3
ARTA 326	Intermediate Filmmaking	3
Essential Learning - Fine Arts		3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
ARTA 325	3D Animation	3
ARTA 327	Sound Design and Post-Production	3
ARTA 323	Character Design and Story Concepts	3
ARTA 421	Advanced Filmmaking	3
Essential Learning - Social and Behavioral Sciences		3
General Elective		3
<b>Semester Credit Hours</b>		<b>18</b>

**Fourth Year****Fall Semester**

ARTA 424	Animation, Film, and Photography Studio I	3
ARTA 426	Advanced Motion Studio	3
General Electives (2 courses)		6
<b>Semester Credit Hours</b>		<b>12</b>

**Spring Semester**

ARTA 425	Animation, Film, and Photography Studio II	3
ARTA 427	Portfolio and Demo Reel	3
ARTA 422	Advanced Photography and Studio Lighting	3
General Electives		5
<b>Semester Credit Hours</b>		<b>14</b>
<b>Total Semester Credit Hours</b>		<b>120</b>

<sup>1</sup> Both courses must be completed. Students may choose which semester to take 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 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## 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  
Lowell Heiny Hall 413  
970.248.1696

## Programs of Study

### Bachelors/Minors

- [Applied Anthropology and Geography \(BA\)](#) (p. 110)

## Applied Anthropology and Geography (BA)

Degree: Bachelor of Arts  
Major: Applied Anthropology and Geography  
Program Code: 3780

## About This Major...

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).

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.

## 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 110	Mathematical Investigations-GTMA1 (or higher)	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b>		
Select one Natural Sciences course with a lab		4
Select one Natural Sciences course		3
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> 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
<b>Wellness Requirements</b>		
KINE 100	Health and Wellness	1
Select one KINA Activity course		1
KINA 112	Hiking	1
	or OREC 105 Backpacking	
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>7</b>

<sup>1</sup> 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 <sup>1</sup>		6
STAT 215	Statistics for Social and Behavioral Sciences	4
<b>Total Semester Credit Hours</b>		<b>10</b>

<sup>1</sup> FLAS 114 & FLAS 115 will not fulfill this requirement.

## Program Specific Degree Requirements

(48 semester hours)

Code	Title	Semester Credit Hours
<b>Major Core Courses</b>		
ANTH 202	Introduction to Anthropology-GTSS3	3
ANTH 220	Principles of Archaeology	3
ANTH 231 & 231L	Survey of Biological Anthropology-GTSS3 and Survey of Biological Anthropology Laboratory-GTSS3	4
ANTH 420 & 420L	Field Methods in Archaeology and Field Methods in Archaeology Laboratory	5
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 421	Cultural Resource Management
ANTH 422	Southwest Archaeology
ANTH 478	Professional Issues in Forensic Science
ANTH 499	Internship
ARKE 466	Field Research in Archeology <sup>1</sup>
ARKE 467 & 467L	Archaeology Lab Methods and Archaeology Laboratory <sup>2</sup>
ARKE 499	Internship
POLS/GEOG 354	Political Geography
GEOG 399	Internship

### Restricted Electives

Select 6 semester hours from the following:	6
ANTH 222	World Prehistory
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 and Human Anatomy and Physiology 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 409	Material Culture Studies
HIST 435	Classical Archaeology

**Total Semester Credit Hours** **48**

<sup>1</sup> ARKE 466 requires students to be in the field or lab for a minimum of 6 hours per day for 7 weeks.

<sup>2</sup> Students taking ARKE 466 are required to take ARKE 467 and ARKE 467L during the subsequent fall 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, including 40 upper division hours. 24 semester hours, including 8-14 semester hours of upper division may be needed.)

Code	Title	Semester Credit Hours
Select electives		24
<b>Total Semester Credit Hours</b>		<b>24</b>

## Suggested Course Plan

### First Year

#### Fall Semester

		Semester Credit Hours
ANTH 202	Introduction to Anthropology-GTSS3	3
ENGL 111	English Composition I-GTC01	3
GEOG 102	Human Geography-GTSS2	3
KINE 100	Health and Wellness	1
Essential Learning - Natural Sciences w/Lab		4
<b>Semester Credit Hours</b>		<b>14</b>

#### Spring Semester

ANTH 220	Principles of Archaeology	3
ENGL 112	English Composition II-GTC02	3
MATH 110	Mathematical Investigations-GTMA1	3
Essential Learning - Fine Arts		3
Essential Learning - History		3
<b>Semester Credit Hours</b>		<b>15</b>

### Second Year

#### Fall Semester

ANTH 231 & 231L	Survey of Biological Anthropology-GTSS3 and Survey of Biological Anthropology Laboratory-GTSS3	4
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GEOG 131	Introduction to Cartography	3
Essential Learning - Social and Behavioral Sciences		3
Foreign Language		3
KINA Activity Course		1
<b>Semester Credit Hours</b>		<b>14</b>
<b>Spring Semester</b>		
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
Applied Anthropology and Geography Elective		3
<b>Semester Credit Hours</b>		<b>16</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
ANTH 420 & 420L	Field Methods in Archaeology and Field Methods in Archaeology Laboratory	5
KINA 112 or OREC 105	Hiking or Backpacking	1
Applied Anthropology and Geography Elective		3
Restricted Elective		3
General Elective		3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Fourth Year</b>		
<b>Fall Semester</b>		
Applied Anthropology and Geography Elective		3
General Electives		9
Restricted Elective		3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
Applied Anthropology and Geography Electives		3
General Electives		12
<b>Semester Credit Hours</b>		<b>15</b>
<b>Total Semester Credit Hours</b>		<b>120</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his 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 Western Colorado Community College 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 Department 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

Office of Student Services  
WCCC, Bishop B102  
2508 Blichmann Avenue  
970.255.2670

## Programs of Study Associates

- [Administrative Support, Applied Business \(AAS\)](#) (p. 114)
- [Frontline Supervision, Applied Business \(AAS\)](#) (p. 116)
- [Marketing Communications, Applied Business \(AAS\)](#) (p. 118)

## Certificates

- [Administrative Support, Applied Business \(Technical Certificate\)](#) (p. 119)
- [Business Foundations, Applied Business \(Technical Certificate\)](#) (p. 121)
- [Graphics Technology, Applied Business \(Technical Certificate\)](#) (p. 122)
- [Management Foundations, Applied Business \(Technical Certificate\)](#) (p. 123)
- [Marketing Graphics Technology, Applied Business \(Technical Certificate\)](#) (p. 124)
- [Office Technology, Applied Business \(Technical Certificate\)](#) (p. 126)

## Administrative Support, Applied Business (AAS)

Degree: Associate of Applied Science

Major: Applied Business

Emphasis: Administrative Support

Program Code: 1300

### About This Major . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. Create professional business documents per industry standards. (Communication Fluency)
2. Utilize business software applications proficiently. (Critical Thinking)
3. Recognize and illustrate effective, efficient, entry level office professional behavior. (Applied Learning)
4. Define and identify the significance of trustworthiness, confidentiality, dependability, self-motivation, and attitude. (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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Communication</b>		
ENGL 111	English Composition I-GTC01	3
ENGL 112	English Composition II-GTC02	3
SPCH 101	Interpersonal Communications	3
<b>Mathematics</b>		
MATH 107	Career Math (or higher)	3
<b>Other Essential Learning Core Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>18</b>

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
KINA 1XX	Activity Course	1
<b>Total Semester Credit Hours</b>		<b>2</b>

## Program Specific Degree Requirements

(21 semester hours, must complete with a grade of "C" or better.)

Code	Title	Semester Credit Hours
<b>Core Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>21</b>

## Suggested Course Plan

First Year

Fall Semester		Semester Credit Hours
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-GTC01	3
KINE 100	Health and Wellness	1
<b>Semester Credit Hours</b>		<b>16</b>
Spring Semester		Semester Credit Hours
ABUS 116	Principles of Supervision	3
ABUS 258	Managing Office Technology II	3

ENGL 112	English Composition II-GTC02	3
MATH 107	Career Math	3
SPCH 101	Interpersonal Communications	3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Second Year</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Total Semester Credit Hours</b>		<b>62</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Frontline Supervision, Applied Business (AAS)

Degree: Associate of Applied Science

Major: Applied Business

Emphasis: Frontline Supervision

Program Code: 1301

### About This Major . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Communication</b>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
SPCH 101	Interpersonal Communications	3
<b>Mathematics</b>		
MATH 107	Career Math (or higher)	3
<b>Other Essential Learning Core Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>18</b>

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
KINA 1XX	Activity Course	1
<b>Total Semester Credit Hours</b>		<b>2</b>

## 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
<b>Total Semester Credit Hours</b>		<b>21</b>

## Program Specific Degree Requirements

(21 semester hours, must complete each course with a grade of "C" or better.)

Code	Title	Semester Credit Hours
<b>Required Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>21</b>

## Suggested Course Plan

First Year

Fall Semester		Semester Credit Hours
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 Communications	3
<b>Semester Credit Hours</b>		<b>16</b>
Spring Semester		Semester Credit Hours
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Second Year</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Total Semester Credit Hours</b>		<b>62</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Marketing Communications, Applied Business (AAS)

Degree: Associate of Applied Science

Major: Applied Business

Emphasis: Marketing Communication

Program Code: 1302

### About This Major . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. Identify essential marketing concepts used in entry level marketing positions. (Applied Learning)
2. Create marketing material using Adobe Photoshop, Illustrator, and InDesign and other marketing materials programs. (Applied Learning)
3. Evaluate the use and strategy of the implementation of social media. (Communication Fluency)
4. Define and identify the significance of trustworthiness, confidentiality, dependability, self-motivation, and attitude. (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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Communication</b>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
SPCH 101	Interpersonal Communications	3
<b>Mathematics</b>		
MATH 107	Career Math (or higher)	3
<b>Other Essential Learning Core Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>18</b>

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
KINA 1XX	Activity Course	1
<b>Total Semester Credit Hours</b>		<b>2</b>

## Program Specific Degree Requirements

(21 semester hours, must earn a grade of "C" or higher in all courses.)

Code	Title	Semester Credit Hours
<b>Core Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>21</b>

## 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
<b>Semester Credit Hours</b>		<b>16</b>

### 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
<b>Semester Credit Hours</b>		<b>15</b>

### Second Year

Fall Semester		Semester Credit Hours
ABUS 156	Problem Solving in the Business Environment	3
BUGB 211	Business Communications	3
MANG 201	Principles of Management	3
SPCH 101	Interpersonal Communications	3
Essential Learning - Social and Behavioral Sciences, Natural Sciences, Fine Arts or Humanities course		3
KINA 1XX	Activity Course	1
<b>Semester Credit Hours</b>		<b>16</b>

### 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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Total Semester Credit Hours</b>		<b>62</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Administrative Support, Applied Business (Technical Certificate)

Award: Technical Certificate  
Program of Study: Applied Business  
Specialization: Administrative Support  
Program Code: 1100

## About This Program . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Required Courses</b>		
ABUS 128	Workplace Behavior	3
ABUS 155	Social Media for Business	3
ABUS 257	Managing Office Technology I	3
<b>Total Semester Credit Hours</b>		<b>9</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
ABUS 128	Workplace Behavior	3
ABUS 155	Social Media for Business	3
ABUS 257	Managing Office Technology I	3
<b>Semester Credit Hours</b>		<b>9</b>
<b>Total Semester Credit Hours</b>		<b>9</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Business Foundations, Applied Business (Technical Certificate)

Award: Technical Certificate  
Program of Study: Applied Business  
Specialization: Business Foundations  
Program Code: 1104

### About This Program . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. 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 WCCC 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/WCCC.

- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Required Courses</b>		
ABUS 102	Business Basics	3
ABUS 160	Introduction to Customer Service	3
ABUS 105	Internet Marketing Strategies	3
<b>Total Semester Credit Hours</b>		<b>9</b>

### Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
ABUS 102	Business Basics	3
ABUS 160	Introduction to Customer Service	3
ABUS 105	Internet Marketing Strategies	3
<b>Semester Credit Hours</b>		<b>9</b>
<b>Total Semester Credit Hours</b>		<b>9</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Graphics Technology, Applied Business (Technical Certificate)

Award: Technical Certificate  
Program of Study: Applied Business  
Specialization: Graphics Technology  
Program Code: 1103

### About This Program . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Required Courses</b>		
ABUS 105	Internet Marketing Strategies	3
ABUS 120	Digital Design Tools	3
ABUS 155	Social Media for Business	3
<b>Total Semester Credit Hours</b>		<b>9</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
ABUS 105	Internet Marketing Strategies	3
ABUS 120	Digital Design Tools	3
ABUS 155	Social Media for Business	3
<b>Semester Credit Hours</b>		<b>9</b>
<b>Total Semester Credit Hours</b>		<b>9</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Management Foundations, Applied Business (Technical Certificate)

Award: Technical Certificate  
 Program of Study: Applied Business  
 Specialization: Management Foundations  
 Program Code: 1121

## About This Program . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Required Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>18</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
ABUS 102	Business Basics	3
ABUS 105	Internet Marketing Strategies	3
ABUS 160	Introduction to Customer Service	3
<b>Semester Credit Hours</b>		<b>9</b>
Spring Semester		
ABUS 128	Workplace Behavior	3
ABUS 200	Business Rules and Regulations	3
MANG 201	Principles of Management	3
<b>Semester Credit Hours</b>		<b>9</b>
<b>Total Semester Credit Hours</b>		<b>18</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student’s petition for graduation is denied, it will be her/his responsibility to consult the Registrar’s Office regarding next steps.

## Marketing Graphics Technology, Applied Business (Technical Certificate)

Award: Technical Certificate

Program of Study: Applied Business

Specialization: Marketing Graphics Technology

Program Code: 1102

## About This Program . . .

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 WCCC’s [Programs of Study](#) page.

All CMU/WCCC 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. 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Required Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>18</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
ABUS 120	Digital Design Tools	3
ABUS 155	Social Media for Business	3
ABUS 105	Internet Marketing Strategies	3
<b>Semester Credit Hours</b>		<b>9</b>
Spring Semester		
ABUS 114	Digital Layout	3
ABUS 160	Introduction to Customer Service	3
ABUS 128	Workplace Behavior	3
<b>Semester Credit Hours</b>		<b>9</b>
<b>Total Semester Credit Hours</b>		<b>18</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

# Office Technology, Applied Business (Technical Certificate)

Award: Technical Certificate  
Program of Study: Applied Business  
Specialization: Office Technology  
Program Code: 1105

## About This Program . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Required Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>18</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
ABUS 155	Social Media for Business	3
ABUS 200	Business Rules and Regulations	3
ABUS 257	Managing Office Technology I	3
<b>Semester Credit Hours</b>		<b>9</b>
Spring Semester		
ABUS 128	Workplace Behavior	3
ABUS 156	Problem Solving in the Business Environment	3
ABUS 258	Managing Office Technology II	3
<b>Semester Credit Hours</b>		<b>9</b>
<b>Total Semester Credit Hours</b>		<b>18</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Applied Technology

### Overview

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. The technical certificate must be from a regionally accredited institution or an institution with which WCCC/CMU has an articulation agreement. 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 WCCC 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.

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 must be in an area of study where a complementary AAS is not currently offered through WCCC.
- Transfer is limited to a Technical Certificate from a regionally accredited institution or an institution with which WCCC 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/WCCC.
- 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 WCCC technical certificate as approved by an advisor/department head to reach the 43 hour requirement.

## Contact Information

Western Colorado Community College  
2508 Blichmann Avenue  
Grand Junction, CO 81505  
970.255.2600 • [wccc@coloradomesa.edu](mailto:wccc@coloradomesa.edu)

## Programs of Study Associates

- [Applied Technology \(AAS\)](#) (p. 127)

## Applied Technology (AAS) Overview

Degree: Associate of Applied Science  
Program Code: 1335

### About This Major . . .

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. The technical certificate must be from a regionally accredited institution or an institution with which WCCC/CMU has an articulation agreement. 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 WCCC 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.

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 must be in an area of study where a complementary AAS is not currently offered through WCCC.
- Transfer is limited to a Technical Certificate from a regionally accredited institution or an institution with which WCCC 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/WCCC.
- 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 WCCC 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 [WCCC's Programs of Study page](#).

All CMU/WCCC 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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 WCCC.
- Transfer is limited to a Technical Certificate from a regionally accredited institution or an institution with which WCCC 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/WCCC.
- 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
<b>English</b>		
ENGL 111	English Composition I-GTCO1	3
Select one of the following courses:		
ENGL 112	English Composition II-GTCO2	3
SPCH 101	Interpersonal Communications	
SPCH 102	Speechmaking	
<b>Mathematics</b>		
MATH 107	Career Math (or higher)	3
<b>Other Essential Learning Core Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>15</b>

## Other Lower Division Requirements

Other Degree Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirements</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Total Semester Credit Hours</b>		<b>2</b>

## 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 WCCC.
- Transfer is limited to a Technical Certificate from a regionally accredited institution or an institution with which WCCC 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/WCCC.
- Students must complete all other degree requirements.

Code	Title	Semester Credit Hours
43 credits from a completed CTE Certificate. Students completing a CTE Certificate of less than 43 credit hours must complete additional credit hours from a single WCCC technical certificate as approved by an advisor/department head.		43
<b>Total Semester Credit Hours</b>		<b>43</b>

## 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 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## 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  
Lowell Heiny Hall 413  
970.248.1696

## Programs of Study Bachelor/Minors

- [Archaeology \(Minor\)](#) (p. 130)

## Archaeology (Minor)

Minor: Archaeology  
Program Code: M725

## About This Minor. . .

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
<b>Required Courses</b> <sup>1</sup>		
ANTH 202	Introduction to Anthropology-GTSS3	3
ANTH 220	Principles of Archaeology	3
ANTH 222	World Prehistory	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	
ARKE 466	Field Research in Archeology	
ARKE 467 & 467L	Archaeology Lab Methods and Archaeology Laboratory	
GIST 332 & 332L	Introduction to Geographic Information Systems and Introduction to Geographic Information Systems Laboratory	
HIST 435	Classical Archaeology	
<b>Total Semester Credit Hours</b>		<b>20</b>

<sup>1</sup> Some courses require prerequisites not required for completion of this minor. Please review all prerequisites and work with your advisor to select courses.

<sup>2</sup> 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 her/his 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 her/his responsibility to consult the Registrar's Office regarding next steps.

## Art

### Program Description

The Bachelor of Arts (BA) degree in Studio Art is designed for students interested in studio but would like to combine their artistic and creative skills with majors or minors in other disciplines. Students are able to tailor this degree so that they can choose from a variety of career paths, for example: owning and operating a gallery or art related business (combined with a business major/minor), art therapy (combined with a psychology minor/major), working as an artist exhibiting artwork, or being involved with artist residencies. 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 Bachelor of Fine Arts (BFA) degree in Art with a concentration 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. Students are able to tailor their degree path according to their individual creative interests by focusing on one or more of these disciplines in their upper division coursework. All of these disciplines focus on the development of critical thinking, creative problem solving, effective communication, aesthetic judgment, and cultural awareness. The degree has a strong emphasis on Studio Art Professional Practices and Portfolio Development and culminates in a required senior gallery thesis exhibition.

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. 138)
- [Education: K-12 Education, Art \(BFA\)](#) (p. 131)
- [Film Studies and Digital Production \(Minor\)](#)
- [Studio Art \(BA\)](#) (p. 141)
- [Studio Art \(Minor\)](#) (p. 143)
- [Studio Art, Art \(BFA\)](#) (p. 135)

## Education: K-12 Education, Art (BFA)

Degree: Bachelor of Fine Arts  
Major: Art  
Concentration: K-12 Teaching  
Program Code: 3270

## About This Major . . .

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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>2</sup>		
MATH 110	Mathematical Investigations-GTMA1 (or higher)	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
PSYC 233	Human Growth and Development-GTSS3 <sup>3</sup>	3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
FINE 101	The Living Arts-GTAH1	3
<b>Natural Sciences</b> <sup>4</sup>		
Select one Natural Sciences course with a lab		4
Select one Natural Sciences course		3

<sup>1</sup> 6 semester hours, must receive a grade of "B" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> 3 semester hours, must receive a grade of "C" or better, must be completed by the time the student has 60 semester hours.

<sup>3</sup> must receive a grade of "B" or better

<sup>4</sup> one course must include a lab

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1

<sup>1</sup> 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
<b>Total Semester Credit Hours</b>		<b>18</b>

## 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
<b>Core Courses</b>		
<i>Art Specialization</i>		
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: Intro to Painting	3
Three semester hours of any ARTH 300-level course		3

ARTH 400	Criticism and Research: Theory and Method	3
<i>Art Certification Specialty</i>		
6 semester hours of 300-Level ARTS or ARTT courses		6
<b>Total Semester Credit Hours</b>		<b>30</b>

**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		
<b>Total Semester Credit Hours</b>		<b>32</b>

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
<b>Total Semester Credit Hours</b>		<b>3</b>

**Suggested Course Plan**

First Year	Semester Credit Hours	
<b>Fall Semester</b>		
ENGL 111	English Composition I-GTC01	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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
ENGL 112	English Composition II-GTC02	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
<b>Semester Credit Hours</b>		<b>17</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>14</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
ARTT 270	Sculpture I	3
Three semester hours of any ARTH 300-level course		3
ARTS 291	Painting I: Intro to Painting	3
EDUC 342	Pedagogy and Assessment: Secondary and K-12	3
EDUC 343	Teaching to Diversity	3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
ARTH 400	Criticism and Research: Theory and Method	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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Fourth Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>14</b>
<b>Spring Semester</b>		
EDUC 499D	Teaching Internship and Colloquia: Elementary for K-12	6
EDUC 499H	Teaching Internship and Colloquia: Secondary for K-12	6
<b>Semester Credit Hours</b>		<b>12</b>
<b>Total Semester Credit Hours</b>		<b>120</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his 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

## About This Major . . .

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 101, ARTE 102, ARTE 118, ARTE 119 and ARTS 151, ARTS 152, with a grade of "B" or better.
  - Maintain a cumulative GPA of 3.00 or higher in all 200-, 300-, and 400-level Studio Art major courses.
  - Successful completion of Art entrance exam with a minimum of 80%.
  - Completion of all 200-, 300-, and 400-level Studio Art major courses with a grade of "C" or better.
- 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)
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.

## 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
<b>English <sup>1</sup></b>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics <sup>1</sup></b>		
MATH 110	Mathematical Investigations-GTMA1	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences <sup>2</sup></b>		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> One course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone <sup>1</sup></b>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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. Additionally, must pass all courses with a grade of "B" or better.)

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

(57 semester hours, must pass all courses with a grade of "C" or higher, unless otherwise noted.)

Code	Title	Semester Credit Hours
<b>Core Courses</b>		
<i>Art History 200-Level</i>		
ARTH 220	History of Modern Art	3
<i>Art History Upper Division</i>		
ARTH 315	Nineteenth-Century Art	3
or ARTH 316	20th Century Art to 1950	
ARTH 400	Criticism and Research: Theory and Method	3
<i>Art Studio 200-Level</i>		
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: Intro to Painting	3
ARTT 270	Sculpture I	3
<i>Professional Practice</i>		
ARTE 294	Sophomore Seminar <sup>1</sup>	3
ARTE 494	Studio Art Senior Seminar	3
<i>Art Studio 300-Level</i>		
15 semester hours of ARTS or ARTT 300-Level courses		15
<i>Art Studio 400-Level</i>		
12 semester hours of ARTS or ARTT 400-Level courses		12
<b>Total Semester Credit Hours</b>		<b>57</b>

<sup>1</sup> Minimum grade of "B" required for ARTE 294 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. 8 semester hours, at least 4 of which must be upper division.

Code	Title	Semester Credit Hours
Select electives		8
<b>Total Semester Credit Hours</b>		<b>8</b>

## Suggested Course Plan

		Semester Credit Hours
<b>First Year</b>		
<b>Fall Semester</b>		
ENGL 111	English Composition I-GTCO1	3
MATH 110	Mathematical Investigations-GTMA1 (or higher)	3
ARTE 118	History of Art, Prehistory to Renaissance-GTAH1	3
ARTE 101	Two-Dimensional Design-GTAH1	3
ARTS 151	Foundation Drawing I	3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - Natural Science		3
KINE 100	Health and Wellness	1
ARTS or ARTT 200-Level Studio (2 courses)		6
ARTH 220	History of Modern Art	3
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
Essential Learning - Natural Science with Lab		4
Essential Learning - Humanities		3
ARTS or ARTT 200-Level Studio (2 courses)		6
ARTE 294	Sophomore Seminar	3
<b>Semester Credit Hours</b>		<b>16</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Essential Learning - Fine Arts		3
ARTS or ARTT 300-Level Studio (3 courses)		9
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - History		3
ARTH 315	Nineteenth-Century Art	3
or ARTH 316	or 20th Century Art to 1950	
ARTS or ARTT 300-Level Studio (2 courses)		6
<b>Semester Credit Hours</b>		<b>15</b>
<b>Fourth Year</b>		
<b>Fall Semester</b>		
Electives		5
ARTH 400	Criticism and Research: Theory and Method	3
ARTS or ARTT 400-Level Studio (2 courses)		6
<b>Semester Credit Hours</b>		<b>14</b>
<b>Spring Semester</b>		
ARTE 494	Studio Art Senior Seminar	3
Elective		3
ARTS or ARTT 400-Level Studio (2 courses)		6
<b>Semester Credit Hours</b>		<b>12</b>
<b>Total Semester Credit Hours</b>		<b>120</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Art History (BA)

Degree: Bachelor of Arts  
Major: Art History  
Program Code: 3278

### About This Major . . .

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 is required in all foundation and art major courses.

- Minimum grade of "C" is required in all foundation and art major courses.
- 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 application 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 (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.

## 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 110	Mathematical Investigations-GTMA1	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>2</sup>		
Select one Natural Sciences course with a lab		4

Select one Natural Sciences course	3
<b>Total Semester Credit Hours</b>	<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> One course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
KINA 1XX	Activity Course	1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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 <sup>1</sup>		6
<b>Total Semester Credit Hours</b>		<b>18</b>

<sup>1</sup> FLAS 114 and FLAS 115 will NOT fulfill this requirement.

## Program Specific Degree Requirements

(45 semester hours, must maintain a cumulative 3.0 GPA, minimum grade of "C" is required in each course.)

Code	Title	Semester Credit Hours
<b>Art Specialization</b>		
ARTE 294	Sophomore Seminar	3
ARTH 220	History of Modern Art	3
ARTS 151	Foundation Drawing I	3
<b>Art History Core</b>		
Select 12 hours from the following:		12
ARTH 315	Nineteenth-Century Art	
ARTH 316	20th Century Art to 1950	
ARTH 318	Development of Contemporary Art	

ARTH 321	Gothic and Northern Renaissance Art and Architecture	
ARTH 325	Italian Renaissance Art History	
ARTH 326	Medieval Art: Early Christian to the Romanesque	
<b>Art History Capstone</b>		
ARTH 400	Criticism and Research: Theory and Method	3
<b>Art History Upper Division</b>		
Select 12 semester hours of ARTH 300- or 400-level courses		12
<b>Studio Art &amp; Design Introduction</b>		
Choose one course from three of the following art and design disciplines:		9
<i>Animation, Film, Photography and Motion Design</i>		
ARTA 123	Lights! Camera! Action	
ARTA 223	Image and Motion	
ARTA 224	Principles of Film	
ARTA 225	Principles of Animation	
<i>Ceramics</i>		
ARTS 241	Beginning Hand Building	
ARTS 242	Beginning Wheel Throwing	
<i>Graphic Design</i>		
ARTG 122	Design It	
ARTG 215	Graphic Design I	
<i>Drawing</i>		
ARTS 152	Foundation Drawing II: Figure Drawing	
<i>Painting</i>		
ARTS 291	Painting I: Intro to Painting	
<i>Photography</i>		
ARTA 222	Principles of Digital Photography	
ARTS 225	Introduction to Photography	
<i>Printmaking</i>		
ARTS 274	Printmaking: Intaglio and Relief	
<i>Sculpture</i>		
ARTT 270	Sculpture I	
<b>Total Semester Credit Hours</b>		<b>45</b>

## General Elective

(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, 13 of which must be upper-level credits. Excludes KINA Activity courses. ARTE 499 is a possible elective.)

Code	Title	Semester Credit Hours
Select electives		20
<b>Total Semester Credit Hours</b>		<b>20</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
ARTH 220	History of Modern Art	3
Essential Learning - Natural Science		3
Essential Learning - Fine Arts		3
Foreign Language I		3
Studio Art Introduction		3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
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
Art History Core Requirement		3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
Art History Core Requirements (2 courses)		6
Essential Learning - Social and Behavioral Sciences		3
ESSL 200	Essential Speech	1
ESSL 290	Maverick Milestone	3
General Elective		3
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
Art History Core Requirement		3
Essential Learning - History		3
General Elective		3
Studio Art Introduction		3
Upper Division Art History		3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Fourth Year</b>		
<b>Fall Semester</b>		
ARTH 400	Criticism and Research: Theory and Method	3
General Elective (2 courses)		5
Studio Art Introduction		3
Upper Division Art History		3
<b>Semester Credit Hours</b>		<b>14</b>
<b>Spring Semester</b>		
General Electives (3 courses)		9
Upper Division Art History (2 courses)		6
<b>Semester Credit Hours</b>		<b>15</b>
<b>Total Semester Credit Hours</b>		<b>120</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Studio Art (BA)

Degree: Bachelor of Arts  
Major: Studio Art  
Program Code: 3277

## About This Major . . .

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 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)
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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 110	Mathematical Investigations-GTMA1	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>2</sup>		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> One course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3

ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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 101	Two-Dimensional Design-GTAH1	3
ARTE 102	Three-Dimensional Design-GTAH1	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 <sup>1</sup>		6
<b>Total Semester Credit Hours</b>		<b>18</b>

<sup>1</sup> FLAS 114 & FLAS 115 will NOT fulfill this requirement.

## 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
<i>Art History</i>		
Select two 300- or 400-level Art History courses		6
<i>Art Studio</i>		
200 Level Requirements:		
ARTS 291	Painting I: Intro 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
<i>Professional Practice</i>		
ARTE 294	Sophomore Seminar	3
<b>Total Semester Credit Hours</b>		<b>39</b>

## 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
<b>Total Semester Credit Hours</b>		<b>26</b>

## Suggested Course Plan

### First Year

#### Fall Semester

		Semester Credit Hours
ENGL 111	English Composition I-GTCO1	3
MATH 110	Mathematical Investigations-GTMA1	3
ARTE 101	Two-Dimensional Design-GTAH1	3
ARTE 119	History of Art, Renaissance to Present-GTAH1	3
ARTS 151	Foundation Drawing I	3
	<b>Semester Credit Hours</b>	<b>15</b>

#### Spring Semester

ENGL 112	English Composition II-GTCO2	3
Essential Learning - Humanities		3
ARTS 291	Painting I: Intro to Painting	3
ARTE 102	Three-Dimensional Design-GTAH1	3
ARTS 241	Beginning Hand Building	3
	<b>Semester Credit Hours</b>	<b>15</b>

### 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
	<b>Semester Credit Hours</b>	<b>15</b>

#### 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
	<b>Semester Credit Hours</b>	<b>15</b>

### 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
	<b>Semester Credit Hours</b>	<b>16</b>

#### 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
	<b>Semester Credit Hours</b>	<b>15</b>

### Fourth Year

#### Fall Semester

ARTS or ARTT 400-Level Studio		3
Electives (4 courses)		11
	<b>Semester Credit Hours</b>	<b>14</b>

### Spring Semester

Electives (5 courses)	15
<b>Semester Credit Hours</b>	<b>15</b>
<b>Total Semester Credit Hours</b>	<b>120</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Studio Art (Minor)

Minor: Studio Art  
Program Code: M200

## About This Minor. . .

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
<b>Required Courses</b>		
ARTE 101	Two-Dimensional Design-GTAH1	3
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: Intro 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 her/his 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 her/his responsibility to consult the Registrar's Office regarding next steps.

## Athletic Coaching and Officiating

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. 145)

## Athletic Coaching and Officiating (Minor)

Minor: Athletic Coaching and Officiating  
Program Code: M105

### About This Minor. . .

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
<i>Choose one of the following:</i>		
KINE 214	Methods of Team Activities	3
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 her/his 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 her/his responsibility to consult the Registrar's Office regarding next steps.

### Athletic Training

The Master of Science in Athletic Training program is a two-year, 38 credit hour, master's degree, delivered via traditional, online, and hybrid formats.

The degree employs course content that focuses on the competencies needed to practice both the art and science of athletic training, leading to compassionate and exceptional care to meet the regional needs of western Colorado and beyond. In alignment with the mission of

the Department of Kinesiology, the program emphasizes promoting wellness and physical activity across a diverse population of patients.

Students will learn the importance of self-care and fostering resilience and wellness in themselves, in order to extend better care to others.

There are two types of applicants for the MSAT program. The first type is the Traditional MSAT applicant with 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.

## 1) Traditional applicants must meet the following minimum requirements for admission:

- 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
  - Five of the eight required prerequisites must be completed at the time of application
  - A plan to complete outstanding coursework must be documented in the application
  - Any outstanding prerequisites must be completed with a grade of "B" or higher
  - All transcripts for outstanding prerequisite coursework must be received by CMU no later than July 1
- Pre-requisite coursework (CMU equivalent)
  - Biology (BIOL 101/101L)
  - General Chemistry (CHEM 131/131L and 132/132L)
  - Physics (PHYS 100)
  - Psychology (PSYC 150)
  - Anatomy and Physiology (BIOL 209/209L and 210/210L)
  - Statistics (STATS 200)
  - Biomechanics (KINE 370/370L)
  - Nutrition (KINE 203)
  - Exercise Physiology (KINE 303/303L)

## Other Requirements

- Official transcripts from all college and university work
- Statement of intent
- Resume
- 2 letters of recommendation
- CASPer Exam
- CASPer Snapshot

- Note: Slight preferences are given to those applicants with ties to the western slope of Colorado.

## Other information

- We recommend that applicants obtain 150 hours of post-high school athletic training experience.
- 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.

## 2) 3+2 applicants must meet the following minimum requirements for admission:

Applicants must meet the following criteria *in addition to all of the criteria for the MSAT program.*

- Declared Exercise Science major.
- 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 via the 3+2 Concurrent Enrollment application form.
- 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 for the MSAT course component.
- Must 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.
- Must complete ALL bachelor degree graduation requirements in the same semester or prior to completing all MSAT graduation requirements.
- Must 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 and MSAT Program Director. This requirement must be met before the published deadline in the semester prior to intended graduation.

## Contact Information

Department of Kinesiology  
Maverick Center 237B  
970.248.1635

## Programs of Study Graduate

- [Athletic Training \(MS\)](#) (p. 147)

### Athletic Training (MS)

Degree: Master of Science

Major: Athletic Training

Program Code: 8155

### About This Program . . .

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 four 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

- Six of the nine required prerequisites must be completed at the time of application
- A plan to complete outstanding coursework must be documented in the application
- Any outstanding prerequisites must be completed with a grade of "B" or higher
  - Any grades under "B" can disqualify an applicant from matriculating into the program
- All transcripts for outstanding prerequisite coursework must be received by CMU no later than July 1
- Prerequisite coursework (CMU equivalent)
  - Biology (BIOL 101/101L)
  - General Chemistry (CHEM 131/131L and 132/132L)
  - Physics (PHYS 100 or PHYS 111/111L and PHYS 112/112L)
  - Psychology (PSYC 150)
  - Anatomy and Physiology (BIOL 209/209L and 210/210L)
  - Statistics (STATS 200)
  - Biomechanics (KINE 370/370L)
  - Nutrition (KINE 203)
  - Exercise Physiology (KINE 303/303L)
- It is recommended that applicants obtain 150 hours of athletic training experience.
- 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:

- Declared Exercise Science major.
- 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)

## Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

**To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options."** This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option 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. 81)" 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

Code	Title	Semester Credit Hours
ATRN 502	Research Methods II	3
ATRN 511	Professionalism in Athletic Training/Healthcare Ethics I	1
ATRN 512	Professionalism in Athletic Training/Healthcare Ethics II	3
ATRN 513	Administration in Athletic Training	3
ATRN 521	Injury and Illness Diagnosis and Management I	4
ATRN 522	Injury and Illness Diagnosis and Management II	4
ATRN 523	Advanced Therapeutic Interventions	1
ATRN 524	Pharmacology and Sport Performance	3
ATRN 531	Clinical Education in Athletic Training I	2
ATRN 532	Clinical Education in Athletic Training II	2
ATRN 533	Clinical Education in Athletic Training III	3
ATRN 534	Clinical Education in Athletic Training IV	3
KINE 501	Research Methods	3
KINE 587	Research	3
<b>Total Semester Credit Hours</b>		<b>38</b>

## Suggested Course Plan

### 3+2 Option Sequence

First Year	Semester Credit Hours
Summer Semester	
Electives for BS Exercise Science	7
<b>Semester Credit Hours</b>	
	<b>7</b>
Fall Semester	
ATRN 511	Professionalism in Athletic Training/Healthcare Ethics I
ATRN 521	Injury and Illness Diagnosis and Management I (May count as Restricted Elective for BS - Exercise Science) <sup>1</sup>

ATRN 531	Clinical Education in Athletic Training I	2
KINE 403	Advanced Strength and Conditioning (Counts towards BS - Exercise Science)	3
KINE 405	Sports Nutrition (Counts towards BS - Exercise Science)	3
KINE 501	Research Methods	3
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
ATRN 502	Research Methods II	3
ATRN 522	Injury and Illness Diagnosis and Management II	4
ATRN 523	Advanced Therapeutic Interventions	1
ATRN 532	Clinical Education in Athletic Training II (May fulfill KINE 499 requirement for BS - Exercise Science) <sup>1</sup>	2
KINE 487	Structured Research (Counts towards BS - Exercise Science)	3
KINE 494	Kinesiology Senior Seminar (Counts towards BS - Exercise Science)	1
<b>Semester Credit Hours</b>		<b>14</b>
<b>Second Year</b>		
<b>Summer Semester</b>		
Electives for BS Exercise Science		6
<b>Semester Credit Hours</b>		<b>6</b>
<b>Fall Semester</b>		
ATRN 513	Administration in Athletic Training	3
ATRN 533	Clinical Education in Athletic Training III	3
KINE 587	Research	3
<b>Semester Credit Hours</b>		<b>9</b>
<b>Spring Semester</b>		
ATRN 512	Professionalism in Athletic Training/Healthcare Ethics II	3
ATRN 524	Pharmacology and Sport Performance	3
ATRN 534	Clinical Education in Athletic Training IV	3
<b>Semester Credit Hours</b>		<b>9</b>
<b>Total Semester Credit Hours</b>		<b>61</b>

<sup>1</sup> Course substitution form and department approval required to apply toward Bachelor's Degree.

## Traditional MSAT Sequence

		Semester Credit Hours
<b>First Year</b>		
<b>Fall Semester</b>		
ATRN 511	Professionalism in Athletic Training/Healthcare Ethics I	1
ATRN 521	Injury and Illness Diagnosis and Management I	4
ATRN 531	Clinical Education in Athletic Training I	2
KINE 501	Research Methods	3
<b>Semester Credit Hours</b>		<b>10</b>
<b>Spring Semester</b>		
ATRN 502	Research Methods II	3
ATRN 522	Injury and Illness Diagnosis and Management II	4
ATRN 523	Advanced Therapeutic Interventions	1
ATRN 532	Clinical Education in Athletic Training II	2
<b>Semester Credit Hours</b>		<b>10</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
ATRN 513	Administration in Athletic Training	3
ATRN 533	Clinical Education in Athletic Training III	3
KINE 587	Research	3
<b>Semester Credit Hours</b>		<b>9</b>
<b>Spring Semester</b>		
ATRN 512	Professionalism in Athletic Training/Healthcare Ethics II	3
ATRN 524	Pharmacology and Sport Performance	3

ATRN 534	Clinical Education in Athletic Training IV	3
<b>Semester Credit Hours</b>		<b>9</b>
<b>Total Semester Credit Hours</b>		<b>38</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If your petition for graduation is denied, it will be your responsibility to apply for graduation in a subsequent semester. Your "Intent to Graduate" does not automatically move to a later graduation date.

## Aviation Technology Program Description

The Aviation Technology program prepares the student for FAA certification as a Private Pilot with an Instrument Rating, Commercial Pilot, and Certified Flight Instructor. In addition, the program offers opportunities to enhance knowledge and expertise in the field of aviation with an Associate of Applied Science in Aviation Technology.

Students required to take developmental coursework will be allowed to enroll as Pre-Aviation students, but will not be registered in Aviation ground or flight courses.

In order to register for Aviation classes, you will be required to present proof of citizenship with an official copy of your birth certificate *and*

state-issued ID, or a current passport. Non-U.S. resident students should contact Student Services for information about registration requirements.

A flight physical with an FAA-designated Aviation Medical Examiner (AME) is required prior to the start of flight training. A second-class medical certificate is recommended, at minimum. To help locate a qualified FAA doctor, visit the [AME locator search](#) for a list of FAA approved doctors by city and state. Appointments are often scheduled several weeks out, so early planning is important.

For additional details about program admissions procedures, costs, and flight training requirements, please see the [Aviation Technology webpage at WCCC](#).

## Contact Information

Office of Student Services  
WCCC, Bishop B102  
2508 Blichmann Avenue  
[970.255.2670](tel:970.255.2670)

## Programs of Study Associates

- [Fixed Wing, Aviation Technology \(AAS\)](#) (p. 151)

## Program Expenses

### Semester 1 - Private Pilot Certificate

Expense/Requirement	Student Cost per Hour	Required Hours	Total Cost
Dual C#172	195.00	42.0	8,190.00
Solo C#172	150.00	13.0	1,950.00
Ground Briefing	45.00	30.0	1,350.00
RB#TD2 Simulator	75.00	3.0	225.00
FAA Check Ride Flight	150.00	1.5	225.00
FAA Check Ride Examiner Fee			600.00
<b>AVTN 102: Private Pilot Flight</b>			<b>12,540.00</b>
Required Supplemental Online Course Materials and Private Pilot Kit			440.00
FAA Knowledge Exam			165.00
TSA Airport Badge			35.00
<b>AVTN 101: Private Pilot Ground</b>			<b>640.00</b>
Tuition and Fees (Credit Hours)	310.20	16.0	4,963.20
Textbooks and Other Course Materials*			1,500.00
<b>Semester Total</b>			<b>19,643.20</b>

#### 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	195.00	40.0	7,800.00
Ground Briefing	45.00	30.0	1,350.00
RB-TD2 Simulator	75.00	5.0	375.00
FAA Check Ride Flight	150.00	2.0	300.00
FAA Check Ride Examiner Fee			600.00
<b>AVTN 112: Instrument Flight</b>			<b>10,425.00</b>
Required Supplemental Online Course Materials and Instrument/Commercial Kit			485.00
FAA Knowledge Exam			165.00
<b>AVTN 111: Instrument Ground</b>			<b>650.00</b>
Tuition and Fees (Credit Hours)	310.20	17.0	5,273.40
Textbooks and Other Course Materials*			500.00
<b>Semester Total</b>			<b>16,848.40</b>

#### 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	195.00	13.0	2,535.00
Solo C-172	150.00	40.0	6,000.00
Ground Briefing	45.00	15.0	675.00
<b>AVTN 202: Commercial Pilot Flight I</b>			<b>9,210.00</b>
Required Supplemental Online Course Materials			170.00
FAA Knowledge Exam			165.00
<b>AVTN 201: Commercial Pilot Ground</b>			<b>335.00</b>
Tuition and Fees (Credit Hours)	310.20	17.0	5,273.40
Textbooks and Other Course Materials*			300.00
<b>Semester Total</b>			<b>15,118.400</b>

### 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
Dual C-172	195.00	27.0	5,265.00
Dual 182 (or other technically advanced aircraft)	195.00	15.0	2,925.00
Solo C-172	150.00	25.0	3,750.00
Ground Briefing	45.00	20.0	900.00
FAA Check Ride Flight	150.00	1.5	225.00
FAA Check Ride Examiner Fee			600.00

**AVTN 203: Commercial Pilot Flight II** **13,665.00**

## Semester 4 - Flight Instructor Rating

Expense/Requirement	Student Cost per Hour	Required Hours	Total Cost
Dual C-172	195.00	7.0	1,365.00
Ground Briefing	45.00	7.0	315.00
Flight Instructor Spin Training			500.00
FAA Check Ride Flight	150.00	1.5	225.00
FAA Check Ride Examiner Fee (x2)			1,200.00
<b>AVTN 213: Flight Instructor Flight</b>			<b>3,605.00</b>
FAA Knowledge Exam (x2)			330.00
<b>AVTN 212: Flight Instructor Ground</b>			<b>330.00</b>
Tuition and Fees (Credit Hours)	310.20	16.0	4,963.20
Textbooks and Other Course Materials*			300.00
<b>Semester Total</b>			<b>22,863.20</b>

## Estimate of Total Program Cost

Expense/Requirement	Total Cost
Ground instruction, including testing fees	1,955.00
Flight Instruction, including FAA Check Rides and Examiner Fees*	49,445.00
Tuition and Fees**	20,473.20
Estimated Books and Course Materials***	2,600.00
<b>TOTAL</b>	<b>74,473.20</b>

## 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

## About This Major . . .

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 <http://ame.cami.jccbi.gov> for a list by city and state.

For more information on what you can do with this major, visit WCCC's [Programs of Study](#) page.

All CMU/WCCC 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Communication</b>		
ENGL 111	English Composition I-GTCO1	3
Select one of the following courses:		
ENGL 112	English Composition II-GTCO2	3
SPCH 101	Interpersonal Communications	
SPCH 102	Speechmaking	
<b>Mathematics</b>		
MATH 108	Technical Mathematics	4
<b>Other Essential Learning Core Courses</b>		
GEOL 103	Weather and Climate-GTSC2	3

PSYC 150	General Psychology-GTSS3	3
<b>Total Semester Credit Hours</b>		<b>16</b>

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Total Semester Credit Hours</b>		<b>2</b>

## 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
<b>Core Courses</b>		
AVTN 101	Private Pilot Ground School	4
AVTN 102	Private Pilot Flight (46.5 hrs) <sup>1</sup>	4
AVTN 111	Instrument Pilot Ground School	4
AVTN 112	Instrument Pilot Flight (39 hrs) <sup>1</sup>	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) <sup>1</sup>	4
AVTN 203	Commercial Pilot Flight II (68.5 hrs) <sup>1</sup>	3
AVTN 218	ATC Procedures	4
AVTN 205	Mountain Flying Ground School	1
AVTN 245	Aviation Safety	2
AVTN 247	Aviation Physiology	2
<b>Track Courses</b>		
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) <sup>1</sup>	
Track 2 - Multi-Engine:		
AVTN 207	Multi-Engine Ground School	
AVTN 208	Multi-Engine Flight (12 hrs) <sup>1</sup>	
Elective Hours (3)		
<b>Total Semester Credit Hours</b>		<b>48</b>

<sup>1</sup> Hours in parenthesis following the course title indicate required flight hours.

## Suggested Course Plan

First Year		Semester Credit Hours
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>17</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
AVTN 201	Commercial Pilot Ground School	2
AVTN 202	Commercial Pilot Flight I	4
AVTN 218	ATC Procedures	4
ENGL 111	English Composition I-GTC01	3
PSYC 150	General Psychology-GTSS3	3
KINA Activity Course		1
<b>Semester Credit Hours</b>		<b>17</b>
<b>Spring Semester</b>		
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 Communications	3
Complete Track 1 CFI or Track 2 Multi-Engine (Both 5 credits) <sup>1</sup>		
Track 1 CFI		
AVTN 211	Fundamentals of Instruction	2
AVTN 212	Flight Instructor Ground School	2
AVTN 213	Flight Instructor Flight	1
<b>Semester Credit Hours</b>		<b>16</b>
<b>Total Semester Credit Hours</b>		<b>66</b>

<sup>1</sup> 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 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## 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

Office of Student Services, WCCC  
Bishop B102  
2508 Blichmann Avenue  
[970.255.2670](tel:970.255.2670)

## Programs of Study Associates

- [Baking and Pastry \(AAS\)](#) (p. 154)

## Certificates

- [Bakeshop Production \(Technical Certificate\)](#) (p. 156)

## Baking and Pastry (AAS)

Degree: Associate of Applied Science  
Major: Baking and Pastry

Major Code: 1340

## About This Major . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Communication</b>		
ENGL 111	English Composition I-GTCO1	3
Select one of the following courses:		
ENGL 112	English Composition II-GTCO2	3
SPCH 101	Interpersonal Communications	
SPCH 102	Speechmaking	
<b>Mathematics</b>		
MATH 107	Career Math (or higher)	3
<b>Other Essential Learning Core Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>15</b>

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Total Semester Credit Hours</b>		<b>2</b>

## 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
<b>Core Classes</b>		
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
<b>Total Semester Credit Hours</b>		<b>45</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
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
<b>Semester Credit Hours</b>		<b>17</b>
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 Communications or Speechmaking	3

Essential Learning - Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course	3
<b>Semester Credit Hours</b>	<b>15</b>
<b>Second Year</b>	
<b>Fall Semester</b>	
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
<b>Semester Credit Hours</b>	<b>16</b>
<b>Spring Semester</b>	
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
<b>Semester Credit Hours</b>	<b>14</b>
<b>Total Semester Credit Hours</b>	<b>62</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Bakeshop Production (Technical Certificate)

Award: Technical Certificate  
Program of Study: Bakeshop Production  
Major Code: 1141

### About This Program . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Required Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>17</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
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
<b>Semester Credit Hours</b>		<b>11</b>
Spring Semester		
CUAR 150	Baking: Decorating and Presentation (1st Mod)	3
CUAR 151	Intermediate Bread Preparation (1st Mod)	3
<b>Semester Credit Hours</b>		<b>6</b>
<b>Total Semester Credit Hours</b>		<b>17</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student’s petition for graduation is denied, it will be her/his responsibility to consult the Registrar’s Office regarding next steps.

## Biological Sciences

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, small mammal biology, fisheries, plant pathology, herpetology, human/animal physiology, the evolution of development, plant evolution, and tropical ecology. Graduates of the program pursue careers in the medical field, botany, wildlife biology, cell biology or biotechnology, among the many career options available with a biology degree from Colorado Mesa University.

Students wishing to obtain 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. 172)

## Bachelors/Minors

- [Biology \(Minor\)](#) (p. 175)
- [Biology, Biological Sciences \(BS\)](#) (p. 158)
- [Cellular, Molecular, and Developmental Biology, Biological Sciences \(BS\)](#) (p. 161)
- [Ecology, Evolution, and Organismal Biology, Biological Sciences \(BS\)](#) (p. 165)
- [Education: Secondary Education, Biological Sciences \(BS\)](#) (p. 169)

## Biology, Biological Sciences (BS)

Degree: Bachelor of Science  
Major: Biological Sciences  
Concentration: Biology  
Program Code: 3410

## About This Major . . .

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. The Department of Biology operates the only electron microscope facility in the area. 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 113	College Algebra-GTMA1 <sup>2</sup>	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>3</sup>		
Select one Natural Sciences course with a lab		4
Select one Natural Sciences course		3
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

<sup>2</sup> 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 or two semesters of calculus. MATH 151 and MATH 152 may be used to fulfill the Mathematics requirement.

<sup>3</sup> 7 semester hours, one course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

## Foundation Courses

(17 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
CHEM 131 & 131L	General Chemistry I-GTSC1 and General Chemistry Laboratory I-GTSC1 <sup>1</sup>	5
CHEM 132 & 132L	General Chemistry II-GTSC1 and General Chemistry Laboratory II-GTSC1 <sup>1</sup>	5
Select one of the following:		3
MATH 146	Calculus for Biological Sciences <sup>2</sup>	
STAT 200	Probability and Statistics-GTMA1	
<b>Total Semester Credit Hours</b>		<b>17</b>

<sup>1</sup> A higher-level subject may be taken in the same category with advisor approval.

<sup>2</sup> If MATH 146 is taken, 3 credits apply to Foundation and 2 credits apply 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
<b>Core Courses</b>		
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
<b>Required Related Study Area</b>		
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-GTSC1 and General Physics Laboratory-GTSC1 <sup>1</sup>	5
PHYS 112 & 112L	General Physics-GTSC1 and General Physics Laboratory-GTSC1 <sup>1</sup>	5
<b>Additional Biology Courses</b>		
Select 20 semester hours from at least three of the following four categories. <sup>2</sup>		20
<i>Category 1: Cellular, Developmental, and Molecular</i>		
BIOL 302	Cellular Biology	



BIOL 310 & 310L	Developmental Biology and Developmental Biology Laboratory
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 & 315L	Biochemistry I and 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 333	Marine Biology
BIOL 335 & 335L	Invertebrate Zoology and Invertebrate Zoology 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 433	Marine Invertebrate Communities
BIOL 450 & 450L	Mycology and Mycology Laboratory

*Category 3: Anatomical and Physiological*

BIOL 209 & 209L	Human Anatomy and Physiology and Human Anatomy and Physiology 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 and Developmental Human Anatomy and Gross and Developmental Human Anatomy Laboratory
BIOL 410 & 410L	Human Osteology and Human Osteology Laboratory

BIOL 421 & 421L	Plant Physiology and Plant Physiology Laboratory
BIOL 423 & 423L	Plant Anatomy and Plant Anatomy Laboratory
BIOL 441	Endocrinology

*Category 4: Ecology, Evolution, and Systematics*

BIOL 211 & 211L	Ecosystem Biology and Ecosystem Biology Laboratory
BIOL 315	Epidemiology
BIOL 320	Plant Systematics
BIOL 321 & 321L	Taxonomy of Grasses and Taxonomy of Grasses Laboratory
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 Field Techniques
BIOL 419 & 419L	Fisheries Management and Fisheries Management Laboratory

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**Total Semester Credit Hours** **48**

<sup>1</sup> A higher-level subject may be taken in the same category with advisor approval.

<sup>2</sup> 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 421/BIOL 421L.

## 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. 18 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
Select additional electives <sup>1</sup>		17
<b>Total Semester Credit Hours</b>		<b>18</b>

<sup>1</sup> 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		Semester Credit Hours
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
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 146	Probability and Statistics-GTMA1 or Calculus for Biological Sciences	3-5
Essential Learning - Fine Arts		3
<b>Semester Credit Hours</b>		<b>15-17</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
BIOL 107 & 107L	Principles of Plant Biology and Principles of Plant Biology Laboratory	4
PHYS 111 & 111L	General Physics-GTSC1 and General Physics Laboratory-GTSC1	5
ENGL 111	English Composition I-GTCO1	3
Essential Learning - Social and Behavioral Sciences		3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
BIOL 208 & 208L	Fundamentals of Ecology and Evolution and Fundamentals of Ecology and Evolution Laboratory	4
PHYS 112 & 112L	General Physics-GTSC1 and General Physics Laboratory-GTSC1	5
ENGL 112	English Composition II-GTCO2	3
Essential Learning - History		3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - Humanities		3
Additional Biology Courses (2 courses)		7
Elective		3
<b>Semester Credit Hours</b>		<b>16</b>
<b>Fourth Year</b>		
<b>Fall Semester</b>		
Essential Learning - Natural Science		3
Additional Biology Courses (2 courses)		6
Electives (2 courses)		6
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
BIOL 483	Senior Thesis	2
Essential Learning - Natural Science with Lab		4

Electives (2-3 courses) <sup>1</sup>	8
<b>Semester Credit Hours</b>	<b>14</b>
<b>Total Semester Credit Hours</b>	<b>120-122</b>

<sup>1</sup> 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 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his 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

## About This Major . . .

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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 151	Calculus I-GT-MA1 <sup>2</sup>	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>3</sup>		
Select one Natural Sciences course with a lab		4

Select one Natural Sciences course	3
<b>Total Semester Credit Hours</b>	<b>31</b>

- <sup>1</sup> Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.
- <sup>2</sup> This is a 5 credit course. 3 credits apply to the Essential Learning requirements and 2 credits apply to electives.
- <sup>3</sup> CHEM 131/CHEM 131L and CHEM 132/CHEM 132L are recommended. Both are prerequisites for upper level chemistry. If chosen, 7 credits apply to the Essential Learning requirement and 3 credits apply to electives.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b>		
ESSL 290	Maverick Milestone	3
ESSL 290	Maverick Milestone	3
<b>Total Semester Credit Hours</b>		<b>8</b>

## 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-GTSC1 and General Physics Laboratory-GTSC1 <sup>1</sup>	5
PHYS 112 & 112L	General Physics-GTSC1 and General Physics Laboratory-GTSC1 <sup>1</sup>	5
STAT 200 or MATH 152	Probability and Statistics-GTMA1 or Calculus II	3-5
<b>Total Semester Credit Hours</b>		<b>17-19</b>

- <sup>1</sup> 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
<b>Core Courses</b>		
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
<b>Required Related Study Area</b>		
BIOL 108 & 108L	Diversity of Organisms-GTSC1 and Diversity of Organisms Laboratory-GTSC1	4
BIOL 302	Cellular Biology	3
BIOL 310 & 310L	Developmental Biology and Developmental Biology Laboratory	4
BIOL 371L	Laboratory Investigations in Cellular and Molecular Biology	3
CHEM 315	Biochemistry I	3
BIOL 425	Molecular Genetics	3
CHEM 311 & 311L	Organic Chemistry I and Organic Chemistry I Laboratory <sup>1</sup>	5
CHEM 312 & 312L	Organic Chemistry II and Organic Chemistry II Laboratory <sup>1</sup>	5
<b>Additional Biology Courses</b>		
Select 13 semester hours from the following lists		13
<i>Category 1: Cellular, Developmental, and Molecular</i>		
BIOL 343	Immunology	
BIOL 344 & 344L	Forensic Molecular Biology and Forensic Molecular Biology Laboratory	
BIOL 442	Pharmacology	
CHEM 315L	Biochemistry Laboratory	
CHEM 316	Biochemistry II	
<i>Category 2: Organismal</i>		
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 333	Marine Biology	
BIOL 335 & 335L	Invertebrate Zoology and Invertebrate Zoology 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 433	Marine Invertebrate Communities
BIOL 450 & 450L	Mycology and Mycology Laboratory
<b>Category 3: Anatomical and Physiological</b>	
BIOL 209 & 209L	Human Anatomy and Physiology and Human Anatomy and Physiology 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 and Developmental Human Anatomy and Gross and Developmental Human Anatomy Laboratory
BIOL 410 & 410L	Human Osteology and Human Osteology Laboratory
BIOL 421 & 421L	Plant Physiology and Plant Physiology Laboratory
BIOL 423 & 423L	Plant Anatomy and Plant Anatomy Laboratory
BIOL 441	Endocrinology
<b>Category 4: Ecology, Evolution, and Systematics</b>	
BIOL 211 & 211L	Ecosystem Biology and Ecosystem Biology Laboratory
BIOL 315	Epidemiology
BIOL 320	Plant Systematics
BIOL 321 & 321L	Taxonomy of Grasses and Taxonomy of Grasses Laboratory
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 Field Techniques
BIOL 419 & 419L	Fisheries Management and Fisheries Management Laboratory
<b>Total Semester Credit Hours</b>	<b>53</b>

<sup>1</sup> CHEM 311/CHEM 311L and CHEM 312/CHEM 312L require CHEM 131/CHEM 131L and CHEM 132/CHEM 132L as prerequisites. Students should take CHEM 131/CHEM 131L and CHEM 132/CHEM 132L for Essential Learning Natural Sciences.

## 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-GT-MA1	2
CHEM 131 & 131L & CHEM 132 & CHEM 132L	General Chemistry I-GTSC1 and General Chemistry Laboratory I-GTSC1 and General Chemistry II-GTSC1 and General Chemistry Laboratory II-GTSC1 <sup>1</sup>	3
Select additional electives		6-8
<b>Total Semester Credit Hours</b>		<b>11-13</b>

<sup>1</sup> CHEM 131 and CHEM 131L as well as CHEM 132 and CHEM 132L are prerequisites for program requirements. If these courses are used to fulfill the Natural Science and Natural Science with a Lab requirements, the 3 credit hours beyond the 7 needed for these Essential Learning requirements will count toward elective credits.

## Suggested Course Plan

First Year		Semester Credit Hours
<b>Fall Semester</b>		
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-GT-MA1	5
KINE 100	Health and Wellness	1
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>15-17</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>15</b>

**Third Year****Fall Semester**

BIOL 302	Cellular Biology	3
PHYS 111 & 111L	General Physics-GTSC1 and General Physics Laboratory-GTSC1	5
CHEM 315	Biochemistry I	3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Semester Credit Hours</b>		<b>15</b>

**Spring Semester**

BIOL 310 & 310L	Developmental Biology and Developmental Biology Laboratory	4
PHYS 112 & 112L	General Physics-GTSC1 and General Physics Laboratory-GTSC1	5
Essential Learning - Social and Behavioral Sciences		3
KINA Activity		1
<b>Semester Credit Hours</b>		<b>13</b>

**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)		5
<b>Semester Credit Hours</b>		<b>15</b>

**Spring Semester**

BIOL 425	Molecular Genetics	3
BIOL 483	Senior Thesis	2
Additional Biology Courses		8
Elective <sup>1</sup>		4
<b>Semester Credit Hours</b>		<b>17</b>
<b>Total Semester Credit Hours</b>		<b>120-122</b>

<sup>1</sup> 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 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his 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

### About This Major . . .

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)

- Evaluate and defend contrasting viewpoints related to ethical, social, civic, and/or environmental challenges in the field of biological sciences. (Personal Social Responsibility)
- 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 113	College Algebra-GTMA1 <sup>2</sup>	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>3</sup>		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

<sup>2</sup> This is a 4 credit course. 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.

<sup>3</sup> 7 semester hours, one course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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

(17-19 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
CHEM 131 & 131L	General Chemistry I-GTSC1 and General Chemistry Laboratory I-GTSC1 <sup>1</sup>	5
CHEM 132 & 132L	General Chemistry II-GTSC1 and General Chemistry Laboratory II-GTSC1 <sup>1</sup>	5
Select one of the following:		3-5
STAT 200	Probability and Statistics-GTMA1 <sup>2</sup>	
MATH 151	Calculus I-GTMA1 <sup>2</sup>	
<b>Total Semester Credit Hours</b>		<b>17-19</b>

<sup>1</sup> 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.

<sup>2</sup> Statistics **and** Calculus may be required for admission to some graduate programs.

## Program Specific Degree Requirements

(51 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
<b>Core Courses</b>		
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
<i>Required Related Study Area</i>		
PHYS 111 & 111L	General Physics-GTSC1 and General Physics 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
<i>Additional Biology Courses</i>		
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	

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 & 315L	Biochemistry I and Biochemistry Laboratory
CHEM 316	Biochemistry II

### 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 333	Marine Biology
BIOL 335 & 335L	Invertebrate Zoology and Invertebrate Zoology 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 433	Marine Invertebrate Communities
BIOL 450 & 450L	Mycology and Mycology Laboratory

### Category 3: Anatomical and Physiological

BIOL 209 & 209L	Human Anatomy and Physiology and Human Anatomy and Physiology 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 and Developmental Human Anatomy and Gross and Developmental Human Anatomy Laboratory
BIOL 410 & 410L	Human Osteology and Human Osteology Laboratory
BIOL 421 & 421L	Plant Physiology and Plant Physiology Laboratory



BIOL 423 & 423L	Plant Anatomy and Plant Anatomy Laboratory	
BIOL 441	Endocrinology	
<b>Category 4: Ecology, Evolution, and Systematics</b>		
BIOL 211 & 211L	Ecosystem Biology and Ecosystem Biology Laboratory	
BIOL 315	Epidemiology	
BIOL 320	Plant Systematics	
BIOL 321 & 321L	Taxonomy of Grasses and Taxonomy of Grasses 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 Field Techniques	
BIOL 419 & 419L	Fisheries Management and Fisheries Management Laboratory	
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	
<b>Total Semester Credit Hours</b>		<b>51</b>

## 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. 13-15 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
12-14 General Elective Semester Hours		12-14
<b>Total Semester Credit Hours</b>		<b>13-15</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
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
<b>Semester Credit Hours</b>		<b>14</b>
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-GTC01	3
STAT 200 or MATH 151	Probability and Statistics-GTMA1 or Calculus I-GT-MA1	3-5
<b>Semester Credit Hours</b>		<b>15-17</b>
Second Year		
Fall Semester		
BIOL 107 & 107L	Principles of Plant Biology and Principles of Plant Biology Laboratory	4
ENGL 112	English Composition II-GTC02	3
PHYS 111 & 111L	General Physics-GTSC1 and General Physics Laboratory-GTSC1	5
Essential Learning - Social and Behavioral Sciences		3
<b>Semester Credit Hours</b>		<b>15</b>
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-GTSC1 and General Physics Laboratory-GTSC1	5
KINA Activity		1
<b>Semester Credit Hours</b>		<b>14</b>
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
<b>Semester Credit Hours</b>		<b>16</b>
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
<b>Semester Credit Hours</b>		<b>15</b>
Fourth Year		
Fall Semester		
Essential Learning - Fine Arts		3
Essential Learning - Natural Science		3
Additional Biology Courses		7
Elective		3
<b>Semester Credit Hours</b>		<b>16</b>
Spring Semester		
BIOL 483	Senior Thesis	2
Additional Biology Courses		7
Electives <sup>1</sup>		6
<b>Semester Credit Hours</b>		<b>15</b>
<b>Total Semester Credit Hours</b>		<b>120-122</b>

<sup>1</sup> 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 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his 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

### About This Major . . .

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)
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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>2</sup>		
MATH 113	College Algebra-GTMA1 (or higher) <sup>3</sup>	3
<b>History</b>		
Select one History course		3

<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
PSYC 233	Human Growth and Development-GTSS3 <sup>4</sup>	3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>5</sup>		
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-GT-SC2	
GEOL 105	Geology of Colorado-GTSC2	
PHYS 101	Elementary Astronomy-GTSC2	
<b>Total Semester Credit Hours</b>		<b>31</b>

- <sup>1</sup> 6 semester hours, must receive a grade of "B" or better and must be completed by the time the student has 60 semester hours.
- <sup>2</sup> 3 semester hours, must receive a grade of "C" or better, must be completed by the time the student has 60 semester hours.
- <sup>3</sup> 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.
- <sup>4</sup> Must receive a grade of "B" or better.
- <sup>5</sup> 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
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

- <sup>1</sup> 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 121	Principles of Chemistry-GTSC1 <sup>1</sup>	4
CHEM 121L	Principles of Chemistry Laboratory-GTSC1 <sup>1</sup>	1

CHEM 122	Principles of Organic Chemistry-GTSC1 <sup>1</sup>	4
CHEM 122L	Principles of Organic Chemistry Laboratory-GTSC1 <sup>1</sup>	1
STAT 200	Probability and Statistics-GTMA1	3
<b>Total Semester Credit Hours</b>		<b>13</b>

<sup>1</sup> 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
<b>Core Courses</b>		
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
<b>Required Related Study Area</b>		
MATH 113	College Algebra-GTMA1	1
One of the following sets of courses:		
GEOL 111 & 111L	Principles of Physical Geology-GTSC1 and Principles of Physical Geology Laboratory-GTSC1	4
GEOL 113 & 113L	Field-Based Introduction to Physical Geology-GTSC1 and Field-Based Introduction to Physical Geology Laboratory-GTSC1	4
GEOL 112 & 112L	Principles of Historical Geology-GTSC1 and Principles of Historical Geology Laboratory-GTSC1	4
PHYS 111 & 111L	General Physics-GTSC1 and General Physics Laboratory-GTSC1	5
PHYS 112 & 112L	General Physics-GTSC1 and General Physics Laboratory-GTSC1	5
<b>Biology Electives</b>		
Select 8 semester hours of upper division BIOL courses:		8
<b>Total Semester Credit Hours</b>		<b>40</b>

### 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 497	Content Methodology Practicum (80 field experience hours)	3
EDUC 497D	Methods of Teaching Secondary Science <sup>1</sup>	2
EDUC 499G	Teaching Internship and Colloquia: Secondary (600 field experience hours)	12
Praxis II Exam Passed		
<b>Total Semester Credit Hours</b>		<b>29</b>

<sup>1</sup> 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
<b>Total Semester Credit Hours</b>		<b>1</b>

## Suggested Course Plan

First Year		Semester Credit Hours
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
CHEM 121 & 121L	Principles of Chemistry-GTSC1 and Principles of Chemistry Laboratory-GTSC1	5
MATH 113	College Algebra-GTMA1	4
<b>Semester Credit Hours</b>		<b>16</b>
Spring Semester		
BIOL 106 & 106L	Principles of Animal Biology and Principles of Animal Biology Laboratory	4
ENGL 112	English Composition II-GTCO2	3
CHEM 122 & 122L	Principles of Organic Chemistry-GTSC1 and Principles of Organic Chemistry Laboratory-GTSC1	5
STAT 200	Probability and Statistics-GTMA1	3
EDUC 115	What It Means To Be An Educator	1
<b>Semester Credit Hours</b>		<b>16</b>

**Second Year****Fall Semester**

BIOL 107 & 107L	Principles of Plant Biology and Principles of Plant Biology Laboratory	4
PHYS 111 & 111L	General Physics-GTSC1 and General Physics Laboratory-GTSC1	5
PSYC 233	Human Growth and Development-GTSS3	3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Semester Credit Hours</b>		<b>16</b>

**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-GTSC1 and General Physics 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
<b>Semester Credit Hours</b>		<b>15</b>

**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
<b>Semester Credit Hours</b>		<b>14</b>

**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
<b>Semester Credit Hours</b>		<b>16</b>

**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 497	Content Methodology Practicum	3
EDUC 497D	Methods of Teaching Secondary Science	2
<b>Semester Credit Hours</b>		<b>15</b>

**Spring Semester**

EDUC 499G	Teaching Internship and Colloquia: Secondary	12
<b>Semester Credit Hours</b>		<b>12</b>
<b>Total Semester Credit Hours</b>		<b>120</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his 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

## About This Major . . .

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/WCCC 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTC01	3
ENGL 112	English Composition II-GTC02	3
<b>Mathematics</b> <sup>1</sup>		
MATH 113	College Algebra-GTMA1 <sup>2</sup>	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>3</sup>		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

<sup>2</sup> 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.

<sup>3</sup> 7 semester hours, one course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1

Select one Activity course	1
<b>Total Semester Credit Hours</b>	<b>2</b>

## Program Specific Degree Requirements

(24 semester hours, a grade of "C" or better must be earned in each course.)

Code	Title	Semester Credit Hours
<b>Core Courses</b>		
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
<b>Required Biology Specialization Courses</b>		
Select eight semester hours <sup>1</sup>		8
<b>Total Semester Credit Hours</b>		<b>24</b>

<sup>1</sup> 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
<b>Total Semester Credit Hours</b>		<b>1-3</b>

<sup>1</sup> 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		Semester Credit Hours
Fall Semester		
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
<b>Semester Credit Hours</b>		<b>15</b>
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
<b>Semester Credit Hours</b>		<b>16</b>

Second Year		Semester Credit Hours
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
<b>Semester Credit Hours</b>		<b>15</b>
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
<b>Semester Credit Hours</b>		<b>14</b>
<b>Total Semester Credit Hours</b>		<b>60</b>

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 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Biology (Minor)

Minor: Biology  
Program Code: M400

### About This Minor. . .

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
<b>Required Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>20</b>

### Advising and Graduation

#### Advising Process and DegreeWorks

Documentation on 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 her/his 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 her/his responsibility to consult the Registrar's Office regarding next steps.

## Business

(Also see [Computer Information Systems](#) (p. 234), [Energy Management/Landman](#) (p. 358), and [Hospitality Management](#) (p. 437))

### Program Description

#### Master of Business Administration

The 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 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

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 degree 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

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. Minor requirements and course details can be found here: <https://catalog.coloradomesa.edu/areas-study/cyber-security/cybersecurity-mnr/#requirementstext>

## 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 Business Department 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 Business Department 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.

### 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.

## 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 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.

## Contact Information

Department of Business  
Dominguez Hall 301  
970.248.1778

## Programs of Study Associates

- [Business Administration, Liberal Arts \(AA\)](#) (p. 215)

## Bachelors/Minors

- [Bachelor of Business Administration in Finance + Master of Business Administration \(3+2\)](#) (p. 181)
- [Bachelor of Science Construction Management + Master of Business Administration \(3+2\)](#) (p. 260)
- [Bachelor of Science in Accounting + Master of Business Administration \(3+2\)](#) (p. 95)
- [Business \(Minor\)](#) (p. 184)
- [Business Administration \(BAS\)](#) (p. 182)
- [Business Analytics \(Minor\)](#) (p. 244)
- [Business Analytics, Business Administration \(BBA\)](#) (p. 209)
- [Business Economics, Business Administration \(BBA\)](#) (p. 185)
- [Economics \(Minor\)](#) (p. 217)
- [Energy Management/Landman, Business Administration \(BBA\)](#) (p. 188)
- [Entrepreneurship \(Minor\)](#) (p. 218)
- [Entrepreneurship, Business Administration \(BBA\)](#) (p. 191)
- [Finance, Business Administration \(BBA\)](#) (p. 194)
- [Hospitality Management, Business Administration \(BBA\)](#) (p. 197)
- [Human Resource Management, Business Administration \(BBA\)](#) (p. 200)
- [International Business \(Minor\)](#)
- [International Business, Business Administration \(BBA\)](#) (p. 203)
- [Management, Business Administration \(BBA\)](#) (p. 206)
- [Marketing, Business Administration \(BBA\)](#) (p. 212)

## Certificates

- [Entrepreneurship \(Professional Certificate\)](#) (p. 219)
- [Fraud Examination \(PCT\)](#) (p. 220)
- [Human Resource Management \(Professional Certificate\)](#) (p. 222)

- [Real Estate \(Professional Certificate\)](#) (p. 650)
- [Supervision \(Technical Certificate\)](#) (p. 223)

## Graduate

- [Business Administration \(MBA\)](#) (p. 178)

## Business Administration (MBA)

Degree: Master of Business Administration  
Program Code: 8100

## About This Program . . .

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 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 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, or Sports Management track. Each track has three basic components: a 24 hour core, a 6 hour research component, and 6 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;
  - Have a cumulative 3.0 GPA or better in prior graduate work;
  - 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;
  - Meet other program admission requirements as determined by the MBA Director/Committee;
- 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.
  - An applicant must demonstrate—through academic transcripts, CLEP, or a formal test-out process—an appropriate background in Financial Accounting, Business Information Technology, Managerial Finance, Principles of Management, Principles of Marketing, and Business Statistics. An applicant without this background will be encouraged to take appropriate leveling courses as directed by the MBA Admissions committee. CMU courses that provide that background are: ACCT 201, CISB 101, FINA 301, MANG 201, MARK 231, and CISB 241 or STAT 241.
  - 36 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 his/her first semester or first six hours of the program a student must file a Degree Planning Sheet with the MBA office 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 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 bachelor degree department representative and to the MBA 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 MBA Office a letter of recommendation from a faculty member in the bachelor degree department.
7. Submit official transcripts to the MBA Office.
8. Complete the MBA program admission process.

9. Meet with MBA Office 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 Office 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 the necessary paperwork to graduate with the bachelor degree to the Business Department with a copy to the MBA Office AND must submit the necessary paperwork to graduate with the MBA to the MBA Office. 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. 81)" 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 pass all courses with a grade of "B" or higher.)

Code	Title	Semester Credit Hours
<b>Required MBA Core Courses</b>		
ACCT 500	Managerial Accounting	3
BUGB 500	Advanced Business Law and Ethics	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
<b>MBA Research Component</b>		
BUGB 530	Research Design	3
BUGB 595	Research Practicum	3
<b>Track</b>		
Select at least one of the following tracks:		6
<i>Professional Track:</i>		
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 500	Management of Information Systems
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
<i>Management Information Systems Track:</i>	
CISB 500	Management of Information Systems
CISB 505	Advanced Project Management
<i>Sports Management Track:</i>	
KINE 500	Facility and Equipment Management in Sport and Fitness
KINE 510	Event and Program Management in Sport and Fitness
<b>Other Requirements</b>	
The following two items must be passed in the last spring semester:	
Written Research Report - completed within BUGB 595	
Oral Research Presentation - completed within BUGB 595	
<b>Total Semester Credit Hours</b>	<b>36</b>

## Suggested Course Plan Option One

### Two Year Graduation Path, Required of 3+2 Concurrent Program Students

Year One		Semester Credit Hours
<b>Fall Semester</b>		
ACCT 500	Managerial Accounting	3
ECON 530	Managerial Economics	3
Course from Track		3
<b>Semester Credit Hours</b>		<b>9</b>
<b>Spring Semester</b>		
FINA 500	Financial Strategy	3
MANG 510	Leading Organizations	3
MARK 500	Marketing Strategy	3
<b>Semester Credit Hours</b>		<b>9</b>
<b>Year Two</b>		
<b>Fall Semester</b>		
BUGB 500	Advanced Business Law and Ethics	3
BUGB 530	Research Design	3
MANG 501	Operations Management	3
<b>Semester Credit Hours</b>		<b>9</b>
<b>Spring Semester</b>		
BUGB 595	Research Practicum	3
MANG 590	Business Strategy	3
Course from Track		3
<b>Semester Credit Hours</b>		<b>9</b>
<b>Total Semester Credit Hours</b>		<b>36</b>

## Option Two

### Three Year Graduation Path, Not Available to 3+2 Concurrent Program Students

Year One		Semester Credit Hours
<b>Fall Semester</b>		
ACCT 500	Managerial Accounting	3
ECON 530	Managerial Economics	3
<b>Semester Credit Hours</b>		<b>6</b>
<b>Spring Semester</b>		
FINA 500	Financial Strategy	3
MARK 500	Marketing Strategy	3
<b>Semester Credit Hours</b>		<b>6</b>
<b>Year Two</b>		
<b>Fall Semester</b>		
BUGB 500	Advanced Business Law and Ethics	3
MANG 501	Operations Management	3
<b>Semester Credit Hours</b>		<b>6</b>
<b>Spring Semester</b>		
MANG 510	Leading Organizations	3
Course from Track		3
<b>Semester Credit Hours</b>		<b>6</b>
<b>Year Three</b>		
<b>Fall Semester</b>		
BUGB 530	Research Design	3
Course from Track		3
<b>Semester Credit Hours</b>		<b>6</b>
<b>Spring Semester</b>		
BUGB 595	Research Practicum	3
MANG 590	Business Strategy	3
<b>Semester Credit Hours</b>		<b>6</b>
<b>Total Semester Credit Hours</b>		<b>36</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If your petition for graduation is denied, it will be your responsibility to apply for graduation in a subsequent semester. Your "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

### About This Major . . .

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 critical thinking, communication fluency, quantitative fluency, and specialized knowledge/applied learning. 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.
- 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
<b>English <sup>1</sup></b>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics <sup>1</sup></b>		
MATH 113	College Algebra-GTMA1 (or higher) <sup>2</sup>	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b>		
Select one Natural Sciences course with a lab		4
Select one Natural Sciences course		3
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

<sup>2</sup> 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
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone <sup>1</sup></b>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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
<b>Required Business Courses</b>		
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
<b>Bachelor of Applied Science Core Courses</b>		
Select 36 semester hours taken as part of a state approved Associate of Applied Science degree		36
<b>Total Semester Credit Hours</b>		<b>69</b>

## 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
<b>Total Semester Credit Hours</b>		<b>14</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Business (Minor)

Minor: Business  
Program Code: M130

### About This Minor. . .

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 of 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
<b>Required Courses</b>		
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: <sup>1</sup>		12
ACCT 202	Principles of Managerial Accounting	
BUGB 231	Survey of Business Law	
CISB 305	Solving Problems Using Spreadsheets <sup>2</sup>	
ECON 201	Principles of Macroeconomics-GTSS1	
ENTR 300	Small Business and Entrepreneurship	
ENTR 450	Entrepreneurship <sup>2</sup>	
FINA 301	Managerial Finance <sup>2</sup>	
HRMA 371	Human Resource Management	
MANG 301	Organizational Behavior	
MANG 410	Effective Workplace Communication	

**Total Semester Credit Hours****24**

- <sup>1</sup> 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.
- <sup>2</sup> 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 her/his 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 her/his responsibility to consult the Registrar's Office regarding next steps.

## Business Economics, Business Administration (BBA)

Degree: Bachelor of Business Administration

Major: Business Administration

Concentration: Business Economics

Program Code: 3122

### About This Major . . .

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 critical thinking, communication fluency, quantitative fluency, and specialized knowledge/applied learning. 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTC01	3
ENGL 112	English Composition II-GTC02	3
<b>Mathematics</b> <sup>1</sup>		
MATH 113	College Algebra-GTMA1 <sup>2</sup>	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>3</sup>		
Select one Natural Sciences course with a lab		4
Select one Natural Sciences course		3
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> This is a 4 credit course. 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.

<sup>3</sup> 7 semester hours, one course must include a lab

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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
<b>Total Semester Credit Hours</b>		<b>21</b>

## 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
<b>Business Administration Core</b>		
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
<b>Business Economics Nucleus</b>		
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
<b>Total Semester Credit Hours</b>		<b>45</b>

## 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
<b>Total Semester Credit Hours</b>		<b>17</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
ENGL 111	English Composition I-GTC01	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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
ENGL 112	English Composition II-GTC02	3
CISB 241	Introduction to Business Analysis	3
or STAT 241	Introduction to Business Analysis	
CISB 210	Fundamentals of Information Systems	3
Essential Learning - Natural Science with Lab		4
KINE 100	Health and Wellness	1
KINA Activity		1
<b>Semester Credit Hours</b>		<b>15</b>

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
<b>Semester Credit Hours</b>		<b>15</b>

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
<b>Semester Credit Hours</b>		<b>16</b>

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
<b>Semester Credit Hours</b>		<b>15</b>

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
<b>Semester Credit Hours</b>		<b>15</b>

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
<b>Semester Credit Hours</b>		<b>15</b>

Spring Semester		
MANG 491	Business Strategy	3
Upper Division ECON electives (6 Hours)		6
General Electives		4
<b>Semester Credit Hours</b>		<b>13</b>
<b>Total Semester Credit Hours</b>		<b>120</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his 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

### About This Major . . .

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 critical thinking, communication fluency, quantitative fluency, and specialized knowledge/applied learning. 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 113	College Algebra-GTMA1 (or higher) <sup>2</sup>	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences Course		3
Select one Social and Behavioral Sciences Course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b>		
Select one Natural Sciences course		3
GEOL 111	Principles of Physical Geology-GTSC1	3
GEOL 111L	Principles of Physical Geology Laboratory-GTSC1	1
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> 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
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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
<b>Total Semester Credit Hours</b>		<b>21</b>

## Program Specific Degree Requirements

(60 semester hours, must maintain a 2.0 cumulative GPA or higher in this area.)

Code	Title	Semester Credit Hours
<b>Business Administration Core</b>		
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
<b>Energy Management/Landman Concentration Courses</b>		
EMGT 101	Energy Management Fundamentals <sup>1</sup>	3
EMGT 201	Land Management Fundamentals <sup>1</sup>	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
<b>Total Semester Credit Hours</b>		<b>60</b>

<sup>1</sup> 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
<b>Total Semester Credit Hours</b>		<b>2</b>

## Suggested Course Plan

First Year	Semester Credit Hours	
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
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	
<b>Semester Credit Hours</b>		<b>15</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
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	Introduction to Business Analysis	3
or STAT 241	or Introduction to Business Analysis	
<b>Semester Credit Hours</b>		<b>16</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>15</b>

**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
<b>Semester Credit Hours</b>		<b>13</b>

**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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Total Semester Credit Hours</b>		<b>120</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his 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

### About This Major . . .

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 critical thinking, communication fluency, quantitative fluency, and specialized knowledge/applied learning. 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)
- 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)
  - Differentiate various functions of teams within organizations. (Specialized Knowledge/Applied Learning)
  - Demonstrate behaviors consistent with effective teamwork. (Specialized Knowledge/Applied Learning)
  - Analyze an issue within an ethical framework. (Personal and Social Responsibility)
  - Recommend a solution based on an ethical framework. (Critical Thinking)
  - 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTC01	3
ENGL 112	English Composition II-GTC02	3
<b>Mathematics</b> <sup>1</sup>		
MATH 113	College Algebra-GTMA1 <sup>2</sup>	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>3</sup>		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

<sup>2</sup> This is a 4 credit course. 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.

<sup>3</sup> 7 semester hours, one course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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	3
ECON 201	Principles of Macroeconomics-GTSS1	3
ECON 202	Principles of Microeconomics-GTSS1	3
<b>Total Semester Credit Hours</b>		<b>21</b>

## 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
<b>Business Administration Core</b>		
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
<b>Entrepreneurship Nucleus</b>		
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	The Point: Experiential Management II	
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 <sup>1</sup>	1
Select additional electives		15-16
<b>Total Semester Credit Hours</b>		<b>16-17</b>

<sup>1</sup> 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	Semester Credit Hours
<b>Fall Semester</b>	
Essential Learning - Social and Behavioral Sciences	3
Essential Learning - Social and Behavioral Sciences	3
Essential Learning - Fine Arts	3
MATH 113	College Algebra-GTMA1
ENGL 111	English Composition I-GTC01
<b>Semester Credit Hours 16</b>	
<b>Spring Semester</b>	
ENGL 112	English Composition II-GTC02
CISB 241	Introduction to Business Analysis
or STAT 241	or Introduction to Business Analysis
CISB 210	Fundamentals of Information Systems
Essential Learning - Natural Science with Lab	4
KINE 100	Health and Wellness
KINA Activity	1
<b>Semester Credit Hours 15</b>	
<b>Second Year</b>	
<b>Fall Semester</b>	
ACCT 201	Principles of Financial Accounting
ECON 201	Principles of Macroeconomics-GTSS1
BUGB 211	Business Communications
BUGB 231	Survey of Business Law
Essential Learning - History	3
<b>Semester Credit Hours 15</b>	
<b>Spring Semester</b>	
ECON 202	Principles of Microeconomics-GTSS1
ACCT 202	Principles of Managerial Accounting
MANG 201	Principles of Management
ESSL 290	Maverick Milestone
ESSL 200	Essential Speech
Essential Learning - Humanities	3
<b>Semester Credit Hours 16</b>	

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
<b>Semester Credit Hours</b>		<b>15</b>
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
<b>Semester Credit Hours</b>		<b>15</b>
Fourth Year		
Fall Semester		
BUGB 440	Business Ethics	3
ENTR 401	Entrepreneurial Finance	3
General Electives (2 courses)		6
MANG 471	Operations Management	3
<b>Semester Credit Hours</b>		<b>15</b>
Spring Semester		
ENTR 450	Entrepreneurship	3
MANG 491	Business Strategy	3
General Electives (2 courses)		6
Elective		1
<b>Semester Credit Hours</b>		<b>13</b>
<b>Total Semester Credit Hours</b>		<b>120</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his 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

### About This Major . . .

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.

All CMU baccalaureate graduates are expected to demonstrate proficiency in critical thinking, communication fluency, quantitative fluency, and specialized knowledge/applied learning. 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 113	College Algebra-GTMA1 <sup>2</sup>	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>3</sup>		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> This is a 4 credit course. 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.

<sup>3</sup> 7 semester hours, one course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone <sup>1</sup></b>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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	3
ECON 201	Principles of Macroeconomics-GTSS1	3
ECON 202	Principles of Microeconomics-GTSS1	3
<b>Total Semester Credit Hours</b>		<b>21</b>

## 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
<b>Business Administration Core</b>		
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
<b>Finance Nucleus</b>		
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
<b>Total Semester Credit Hours</b>		<b>45</b>

## 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
<b>Total Semester Credit Hours</b>		<b>17</b>

## Suggested Course Plan

First Year		Semester Credit Hours
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>

**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

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<b>Semester Credit Hours</b>	<b>15</b>
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**Spring Semester**

CISB 341	Quantitative Decision Making	3
MARK 335	Sales and Sales Management	3
Essential Learning - Natural Science		3
General Electives (2 courses)		6

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<b>Semester Credit Hours</b>	<b>15</b>
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**Fourth Year****Fall Semester**

BUGB 440	Business Ethics	3
FINA 320	Fundamentals of Investments	3
FINA 431	International Financial Management	3
MANG 471	Operations Management	3
General Elective		3

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<b>Semester Credit Hours</b>	<b>15</b>
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**Spring Semester**

FINA 451	Financial Management: Theory and Applications	3
FINA 420	Security Analysis and Portfolio Management	3
MANG 491	Business Strategy	3
General Elective		4

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<b>Semester Credit Hours</b>	<b>13</b>
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<b>Total Semester Credit Hours</b>	<b>120</b>
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- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and 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 her/his 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

### About This Major . . .

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 critical thinking, communication fluency, quantitative fluency, and specialized knowledge/applied learning. 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

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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.

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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 113	College Algebra-GTMA1 <sup>2</sup>	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>3</sup>		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

<sup>2</sup> This is a 4 credit course. 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.

<sup>3</sup> 7 semester hours, one course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone <sup>1</sup></b>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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	3
ECON 201	Principles of Macroeconomics-GTSS1	3
ECON 202	Principles of Microeconomics-GTSS1	3
<b>Total Semester Credit Hours</b>		<b>21</b>

## 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
<b>Business Administration Core</b>		
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
<b>Required Concentration Courses</b>		
HMGT 101	Travel Industry I	3

HMGT 200	Management and Supervisory Skills for the Hospitality Industry	3
HMGT 370	Managing Quality Service	3
HMGT 410	Hospitality Facilities Management	3
HMGT 450	Strategic Hospitality Sales and Marketing	3
HMGT 470	Hospitality Management Strategies	3
MANG 499	Internship	3-6
<b>Restricted Electives</b>		
Upper Division Business/Hospitality Management Electives <sup>1</sup>		6-9
<b>Total Semester Credit Hours</b>		<b>57-63</b>

<sup>1</sup> Recommend HMGT 371 Events Management, HMGT 352 Public Recreation Systems and HMGT 350 Private/Commercial Recreation; 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
<b>Total Semester Credit Hours</b>		<b>2</b>

## 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		Semester Credit Hours
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
ENGL 112	English Composition II-GTCO2	3
CISB 241	Introduction to Business Analysis	3
or STAT 241	or Introduction to Business Analysis	
MARK 231	Principles of Marketing	3
Essential Learning - Natural Science with Lab		4
KINE 100	Health and Wellness	1
KINA Activity		1
<b>Semester Credit Hours</b>		<b>15</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
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
HMG1 101	Travel Industry I	3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
ACCT 202	Principles of Managerial Accounting	3
ECON 202	Principles of Microeconomics-GTSS1	3
HMG1 200	Management and Supervisory Skills for the Hospitality Industry	3
MANG 201	Principles of Management	3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Semester Credit Hours</b>		<b>16</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
FINA 301	Managerial Finance	3
HMG1 370	Managing Quality Service	3
HRMA 371	Human Resource Management	3
MANG 301	Organizational Behavior	3
Essential Learning - History		3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
CISB 210	Fundamentals of Information Systems	3
CISB 341	Quantitative Decision Making	3
Essential Learning - Natural Science		3
Upper Division Business/HMG1 Elective		3
<b>Semester Credit Hours</b>		<b>12</b>
<b>Fourth Year</b>		
<b>Fall Semester</b>		
BUGB 440	Business Ethics	3
HMG1 410	Hospitality Facilities Management	3
MANG 471	Operations Management	3
Essential Learning - Humanities		3
Upper Division Business/HMG1 Elective		3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
HMG1 450	Strategic Hospitality Sales and Marketing	3
HMG1 470	Hospitality Management Strategies	3
MANG 491	Business Strategy	3
MANG 499	Internship (or take during summer)	3-6
Upper Division Business/HMG1 Business Elective		3
General Elective		1
<b>Semester Credit Hours</b>		<b>16-19</b>
<b>Total Semester Credit Hours</b>		<b>120-123</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his 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

## About This Major . . .

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 critical thinking, communication fluency, quantitative fluency, and specialized knowledge/applied learning. 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
<b>English <sup>1</sup></b>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics <sup>1</sup></b>		
MATH 113	College Algebra-GTMA1 <sup>2</sup>	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3

Select one Social and Behavioral Sciences course	3
<b>Fine Arts</b>	
Select one Fine Arts course	3
<b>Natural Sciences</b> <sup>3</sup>	
Select one Natural Sciences course	3
Select one Natural Sciences course with a lab	4
<b>Total Semester Credit Hours</b>	<b>31</b>

- <sup>1</sup> Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.
- <sup>2</sup> This is a 4 credit course. 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.
- <sup>3</sup> 7 semester hours, one course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

- <sup>1</sup> 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
<b>Total Semester Credit Hours</b>		<b>21</b>

## 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
<b>Business Administration Core</b>		
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
<b>Human Resource Management Nucleus</b>		
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
<b>Total Semester Credit Hours</b>		<b>45</b>

## 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
<b>Total Semester Credit Hours</b>		<b>17</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
ENGL 111	English Composition I-GTC01	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
<b>Semester Credit Hours</b>		<b>16</b>
Spring Semester		
ENGL 112	English Composition II-GTC02	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
<b>Semester Credit Hours</b>		<b>15</b>

**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

<b>Semester Credit Hours</b>	<b>15</b>
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**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

<b>Semester Credit Hours</b>	<b>16</b>
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**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

<b>Semester Credit Hours</b>	<b>15</b>
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**Spring Semester**

FINA 301	Managerial Finance	3
CISB 341	Quantitative Decision Making	3
MANG 370	Leadership	3
General Electives (2 courses)		6

<b>Semester Credit Hours</b>	<b>15</b>
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**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

<b>Semester Credit Hours</b>	<b>15</b>
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**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

<b>Semester Credit Hours</b>	<b>13</b>
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<b>Total Semester Credit Hours</b>	<b>120</b>
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## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his 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

### About This Major . . .

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 critical thinking, communication fluency, quantitative fluency, and specialized knowledge/applied learning. 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 113	College Algebra-GTMA1 <sup>2</sup>	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3

Select one Social and Behavioral Sciences course	3
<b>Fine Arts</b>	
Select one Fine Arts course	3
<b>Natural Sciences</b> <sup>3</sup>	
Select one Natural Sciences course	3
Select one Natural Sciences course with a lab	4
<b>Total Semester Credit Hours</b>	<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

<sup>2</sup> This is a 4 credit course. 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.

<sup>3</sup> 7 semester hours, one course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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
<b>Total Semester Credit Hours</b>		<b>21</b>

## 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
<b>Business Administration Core</b>		
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
<b>International Business Nucleus</b>		
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
<b>Total Semester Credit Hours</b>		<b>45</b>

## 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
<b>Total Semester Credit Hours</b>		<b>17</b>

## Suggested Course Plan

First Year	Semester	Semester Credit Hours
	Fall Semester	
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
	<b>Semester Credit Hours</b>	<b>16</b>
	Spring Semester	
ENGL 112	English Composition II-GTCO2	3
CISB 241	Introduction to Business Analysis	3
or STAT 241	or Introduction to Business Analysis	
CISB 210	Fundamentals of Information Systems	3
Essential Learning - Natural Science with Lab		4
KINE 100	Health and Wellness	1

KINA Activity		1
<b>Semester Credit Hours</b>		<b>15</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
HRMA 371	Human Resource Management	3
FINA 301	Managerial Finance	3
MANG 301	Organizational Behavior	3
General Electives (2 courses)		6
<b>Semester Credit Hours</b>		<b>15</b>
<b>Fourth Year</b>		
<b>Fall Semester</b>		
BUGB 440	Business Ethics	3
FINA 431	International Financial Management	3
General Electives (2 courses)		6
MANG 471	Operations Management	3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
MANG 491	Business Strategy	3
BUGB 435	Emerging Markets	3
ECON 420	International Economics	3
or ECON 310	or Money and Banking	
or ECON 342	or Intermediate Macroeconomic Theory	
BUGB 401	International Business	3
General Elective		1
<b>Semester Credit Hours</b>		<b>13</b>
<b>Total Semester Credit Hours</b>		<b>120</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his 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

## About This Major . . .

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 critical thinking, communication fluency, quantitative fluency, and specialized knowledge/applied learning. 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)
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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,**

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## 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTC01	3
ENGL 112	English Composition II-GTC02	3
<b>Mathematics</b> <sup>1</sup>		
MATH 113	College Algebra-GTMA1 <sup>2</sup>	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		



Select one Humanities course	3
<b>Social and Behavioral Sciences</b>	
Select one Social and Behavioral Sciences course	3
Select one Social and Behavioral Sciences course	3
<b>Fine Arts</b>	
Select one Fine Arts course	3
<b>Natural Sciences</b> <sup>3</sup>	
Select one Natural Sciences course	3
Select one Natural Sciences course with a lab	4
<b>Total Semester Credit Hours</b>	<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

<sup>2</sup> This is a 4 credit course. 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.

<sup>3</sup> 7 semester hours, one course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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
<b>Total Semester Credit Hours</b>		<b>21</b>

## 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
<b>Business Administration Core</b>		
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
<b>Management Nucleus</b>		
CISB 410	Project Management	3
ENTR 300	Small Business and Entrepreneurship	3
or ENTR 450	Entrepreneurship	
MANG 370	Leadership	3
<b>Total Semester Credit Hours</b>		<b>39</b>

Code	Title	Semester Credit Hours
<b>Restricted Electives</b>		
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	
<b>Total Semester Credit Hours</b>		<b>6</b>

## 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
<b>Total Semester Credit Hours</b>		<b>17</b>

## Suggested Course Plan

First Year		Semester Credit Hours
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>14</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
FINA 301	Managerial Finance	3
MANG 301	Organizational Behavior	3
MANG 370	Leadership	3
Management or General Electives (2 courses)		6
<b>Semester Credit Hours</b>		<b>15</b>
<b>Fourth Year</b>		
<b>Fall Semester</b>		
BUGB 440	Business Ethics	3
CISB 410	Project Management	3
MANG 471	Operations Management	3
Management or General Electives (2 courses)		6
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
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 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his 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

## About This Major . . .

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 critical thinking, communication fluency, quantitative fluency, and specialized knowledge/applied learning. 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTC01	3
ENGL 112	English Composition II-GTC02	3
<b>Mathematics</b> <sup>1</sup>		
MATH 113	College Algebra-GTMA1 <sup>2</sup>	3

<b>History</b>	
Select one History course	3
<b>Humanities</b>	
Select one Humanities course	3
<b>Social and Behavioral Sciences</b>	
Select one Social and Behavioral Sciences course	3
Select one Social and Behavioral Sciences course	3
<b>Fine Arts</b>	
Select one Fine Arts course	3
<b>Natural Sciences</b> <sup>3</sup>	
Select one Natural Sciences course with a lab	4
Select one Natural Sciences course	3
<b>Total Semester Credit Hours</b>	<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

<sup>2</sup> This is a 4 credit course. 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.

<sup>3</sup> 7 semester hours, one course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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
<b>Total Semester Credit Hours</b>		<b>21</b>

## 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
<b>Business Administration Core</b>		
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
<b>Business Analytics Nucleus</b>		
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
<b>Total Semester Credit Hours</b>		<b>48</b>

## 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
<b>Total Semester Credit Hours</b>		<b>14</b>

## 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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Fourth Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
ECON 415	Econometrics	3
MANG 491	Business Strategy	3
General Electives		7
<b>Semester Credit Hours</b>		<b>13</b>
<b>Total Semester Credit Hours</b>		<b>120</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his 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

## About This Major . . .

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 critical thinking, communication fluency, quantitative fluency, and specialized knowledge/applied learning. 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 113	College Algebra-GTMA1 <sup>2</sup>	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3

Select one Social and Behavioral Sciences course	3
<b>Fine Arts</b>	
Select one Fine Arts course	3
<b>Natural Sciences</b> <sup>3</sup>	
Select one Natural Sciences course	3
Select one Natural Sciences course with a lab	4
<b>Total Semester Credit Hours</b>	<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

<sup>2</sup> This is a 4 credit course. 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.

<sup>3</sup> 7 semester hours, one course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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
<b>Total Semester Credit Hours</b>		<b>21</b>

## 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
<b>Business Administration Core</b>		
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
<b>Marketing Nucleus</b>		
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
<b>Total Semester Credit Hours</b>		<b>48</b>

## 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
<b>Total Semester Credit Hours</b>		<b>14</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
ENGL 111	English Composition I-GTC01	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
<b>Semester Credit Hours</b>		<b>16</b>
Spring Semester		
ENGL 112	English Composition II-GTC02	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
<b>Semester Credit Hours</b>		<b>14</b>

**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

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<b>Semester Credit Hours</b>	<b>15</b>
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**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

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<b>Semester Credit Hours</b>	<b>16</b>
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**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

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<b>Semester Credit Hours</b>	<b>15</b>
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**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

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<b>Semester Credit Hours</b>	<b>15</b>
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**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

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<b>Semester Credit Hours</b>	<b>15</b>
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**Spring Semester**

MARK 432	Advanced Marketing	3
MANG 491	Business Strategy	3
General Electives		7
KINA Activity		1

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<b>Semester Credit Hours</b>	<b>14</b>
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<b>Total Semester Credit Hours</b>	<b>120</b>
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## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his 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

## About This Major . . .

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/WCCC 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 113	College Algebra-GTMA1 (or higher) <sup>2</sup>	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
ECON 201	Principles of Macroeconomics-GTSS1	3
ECON 202	Principles of Microeconomics-GTSS1	3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b>		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

<sup>2</sup> 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
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Total Semester Credit Hours</b>		<b>2</b>

## Program Specific Degree Requirements

(21 semester hours)

Code	Title	Semester Credit Hours
<b>Required Courses</b>		
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 <sup>1</sup>	

CISB 101	Business Information Technology	3
<b>Total Semester Credit Hours</b>		<b>21</b>

<sup>1</sup> 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
<b>Total Semester Credit Hours</b>		<b>6</b>

## 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
<b>Semester Credit Hours</b>		<b>15</b>

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
<b>Semester Credit Hours</b>		<b>16</b>

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
<b>Semester Credit Hours</b>		<b>15</b>

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
<b>Semester Credit Hours</b>		<b>14</b>
<b>Total Semester Credit Hours</b>		<b>60</b>

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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Economics (Minor)

Minor: Economics  
Program Code: M710

### About This Minor. . .

The minor in Economics is designed to prepare students with an overview of the basics of economics. Coursework includes the principles 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

(24 semester hours)

Code	Title	Semester Credit Hours
<b>Required Courses</b>		
ECON 201	Principles of Macroeconomics-GTSS1	3
ECON 202	Principles of Microeconomics-GTSS1	3
ECON 320	History of Economic Ideas	3
ECON 342	Intermediate Macroeconomic Theory	3
ECON 343	Intermediate Microeconomic Theory	3
MATH 121	Calculus for Business	3
Select one of the following courses:		
CISB 241	Introduction to Business Analysis <sup>1</sup>	
STAT 241	Introduction to Business Analysis <sup>1</sup>	

Select 3 semester hours of additional Upper Division hours in Economics 3

**Total Semester Credit Hours** 24

<sup>1</sup> CISB 241 and STAT 241 have prerequisites not required for this minor. Please refer to 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 her/his 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 her/his responsibility to consult the Registrar's Office regarding next steps.

## Entrepreneurship (Minor)

Minor: Entrepreneurship  
Program Code: M150

## About This Minor. . .

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
<b>Required Courses</b>		
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	The Point: Experiential Management II	
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 her/his 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 her/his responsibility to consult the Registrar's Office regarding next steps.

## Entrepreneurship (Professional Certificate)

Award: Professional Certificate  
Program of Study: Entrepreneurship  
Program Code: 1171

## About This Program . . .

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
<b>Required Courses</b>		
ENTR 300	Small Business and Entrepreneurship	3
ENTR 343	Exploring Entrepreneur Opportunities	3
ENTR 401	Entrepreneurial Finance	3
<b>Total Semester Credit Hours</b>		<b>9</b>

## Suggested Course Plan

First Year		Semester Credit Hours
<b>Fall Semester</b>		
ENTR 300	Small Business and Entrepreneurship	3
<b>Semester Credit Hours</b>		<b>3</b>
<b>Spring Semester</b>		
ENTR 343	Exploring Entrepreneur Opportunities	3
<b>Semester Credit Hours</b>		<b>3</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
ENTR 401	Entrepreneurial Finance	3
<b>Semester Credit Hours</b>		<b>3</b>
<b>Total Semester Credit Hours</b>		<b>9</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If your petition for graduation is denied, it will be your responsibility to apply for graduation in a subsequent semester. Your "Intent to Graduate" does not automatically move to a later graduation date.

## Fraud Examination (PCT)

### Overview

Award: Professional Certificate  
Program of Study: Fraud Examination  
Program Code: 1702

### About This Program . . .

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 critical thinking, communication fluency, quantitative fluency, and specialized knowledge/applied learning. 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

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

**To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options."** This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option 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:

- 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
<b>Total Semester Credit Hours</b>		<b>12</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
ACCT 470	Fraud and Forensic Accounting	3
ACCT 471	Data Analytics for Accounting	3
<b>Semester Credit Hours</b>		<b>6</b>
Spring Semester		
ACCT 473	Fraud Legalities	3
ACCT 475	Fraud Examination <sup>1</sup>	3
<b>Semester Credit Hours</b>		<b>6</b>
<b>Total Semester Credit Hours</b>		<b>12</b>

<sup>1</sup> 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If your petition for graduation is denied, it will be your responsibility to apply for graduation in a subsequent semester. Your "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

### About This Program . . .

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 critical thinking, communication fluency, quantitative fluency, and specialized knowledge/applied learning. 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 <sup>1</sup>	3
HRMA 372	Employee Recruitment and Selection	3
HRMA 474	Training and Development	3
HRMA 475	Compensation and Reward Systems	3
<b>Total Semester Credit Hours</b>		<b>12</b>

<sup>1</sup> 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		Semester Credit Hours
Spring Semester		
HRMA 371	Human Resource Management	3
<b>Semester Credit Hours</b>		<b>3</b>
Fall Semester		
HRMA 372	Employee Recruitment and Selection	3
HRMA 474	Training and Development	3
<b>Semester Credit Hours</b>		<b>6</b>
Second Year		
Spring Semester		
HRMA 475	Compensation and Reward Systems	3
<b>Semester Credit Hours</b>		<b>3</b>
<b>Total Semester Credit Hours</b>		<b>12</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If your petition for graduation is denied, it will be your responsibility to apply for graduation in a subsequent semester. Your "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

## About This Program . . .

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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Introduction to Business</b>		
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	
<b>Principles of Management</b>		
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	
<b>Business Communications</b>		
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	
<b>Total Semester Credit Hours</b>		<b>9</b>

## Suggested Course Plan

First Year	Semester Credit Hours
<b>Fall Semester</b>	
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
<b>Semester Credit Hours</b>	
	<b>3</b>
<b>Spring Semester</b>	
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
<b>Semester Credit Hours</b>	
	<b>3</b>
<b>Second Year</b>	
<b>Fall Semester</b>	
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
<b>Semester Credit Hours</b>	
	<b>3</b>
<b>Total Semester Credit Hours</b>	
	<b>9</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student’s petition for graduation is denied, it will be her/his responsibility to consult the Registrar’s Office regarding next steps.

## Business Analytics

(See [Business](#) (p. 175))

## 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 the 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

Department of Physical and Environmental Sciences  
Wubben Science 232  
970.248.1993

## Programs of Study Bachelors/Minors

- [Biochemistry, Chemistry \(BS\)](#) (p. 225)
- [Chemistry \(BS\)](#) (p. 228)
- [Chemistry \(Minor\)](#) (p. 231)

## Biochemistry, Chemistry (BS)

Degree: Bachelor of Science

Major: Chemistry

Concentration: Biochemistry

Program Code: 3476

### About This Major . . .

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)

- Interpret chemical and biological information from peer-reviewed publications. (Critical Thinking)
- Communicate chemical and biological topics effectively, both verbally and in writing. (Communication Fluency)
- 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 151	Calculus I-GT-MA1 <sup>2</sup>	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b>		
Select one Natural Sciences course with a lab		4
Select one Natural Sciences course		3
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

<sup>2</sup> 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
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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-GT-MA1	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-GTSC1 and General Physics 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-GTSC1 and General Physics Laboratory-GTSC1	
<b>Total Semester Credit Hours</b>		<b>21</b>

## Program Specific Degree Requirements

(54 semester hours, must pass all courses with a grade of "C" or higher)

Code	Title	Semester Credit Hours
<b>Core Courses</b>		
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
<i>Biochemistry Concentration Courses</i>		
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
<b>Total Semester Credit Hours</b>		<b>47</b>

Code	Title	Semester Credit Hours
<b>Restricted Electives</b>		
Select 7 semester hours from the following list: <sup>1</sup>		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	
<b>Total Semester Credit Hours</b>		<b>7</b>

<sup>1</sup> 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
<b>Total Semester Credit Hours</b>		<b>8</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
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
<b>Semester Credit Hours</b>		<b>15</b>
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
<b>Semester Credit Hours</b>		<b>15</b>

<b>Second Year</b>		
<b>Fall Semester</b>		
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-GTSC1 and General Physics Laboratory-GTSC1	
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
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-GTSC1 and General Physics Laboratory-GTSC1	
<b>Semester Credit Hours</b>		<b>15</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>14</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Fourth Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Total Semester Credit Hours</b>		<b>120</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Chemistry (BS)

Degree: Bachelor of Science  
Major: Chemistry  
Program Code: 3470

## About This Major . . .

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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTC01	3
ENGL 112	English Composition II-GTC02	3
<b>Mathematics</b> <sup>1</sup>		
MATH 151	Calculus I-GT-MA1 <sup>2</sup>	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b>		
Select one Natural Sciences course with a lab		4
Select one Natural Sciences course		3
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

<sup>2</sup> 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
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1

Essential Learning Capstone <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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-GT-MA1	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-GTSC1 and General Physics 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-GTSC1 and General Physics Laboratory-GTSC1	
<b>Total Semester Credit Hours</b>		<b>17</b>

## Program Specific Degree Requirements

(51 semester hours, must pass all courses with a grade of "C" or higher)

Code	Title	Semester Credit Hours
<b>Core Courses</b>		
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
<b>Additional Chemistry Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>44</b>

<sup>1</sup> Must pass all courses with a grade of "C" or higher

Code	Title	Semester Credit Hours
<b>Restricted Electives</b>		
Select 7 semester hours from the following list: <sup>1</sup>		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	
<b>Total Semester Credit Hours</b>		<b>7</b>

<sup>1</sup> 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
<b>Total Semester Credit Hours</b>		<b>15</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
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-GT-MA1	5
Essential Learning - Natural Science		3
<b>Semester Credit Hours</b>		<b>16</b>
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
<b>Semester Credit Hours</b>		<b>17</b>

**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-GTSC1 and General Physics Laboratory-GTSC1	
KINE 100	Health and Wellness	1
<b>Semester Credit Hours</b>		<b>15</b>

**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-GTSC1 and General Physics Laboratory-GTSC1	
CHEM 301 & 301L	Analytical Chemistry and Analytical Chemistry Laboratory	4
<b>Semester Credit Hours</b>		<b>14</b>

**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
<b>Semester Credit Hours</b>		<b>16</b>

**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
<b>Semester Credit Hours</b>		<b>15</b>

**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
<b>Semester Credit Hours</b>		<b>14</b>

**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
<b>Semester Credit Hours</b>		<b>13</b>
<b>Total Semester Credit Hours</b>		<b>120</b>

Some courses 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Chemistry (Minor)

Minor: Chemistry  
Program Code: M410

### About This Minor. . .

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

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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.



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
<b>Required Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>19</b>
Code	Title	Semester Credit Hours
<b>Restricted Electives</b>		
Choose 5 semester hours of upper division chemistry courses		5
<b>Total Semester Credit Hours</b>		<b>5</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 her/his 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. They may apply to the Civil 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 technical GPA of 3.0 or better, or
- After completing all required lower-division coursework at CMU with a technical GPA of 3.0 or better.

Interested students can learn more about the program and admission options on the [Department of Computer Science and Engineering website](#).

## Contact Information

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. 233)

## 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 the 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

[More information for CMU/CU Boulder Partnership Degree in Civil Engineering](#)

## 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 his or her 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  
Lowell Heiny Hall 413  
970.248.1696

## Programs of Study Bachelors/Minors

- [Classical Studies \(Minor\)](#) (p. 233)

## Classical Studies (Minor)

Minor: Classical Studies  
Program Code: M230

## About This Minor. . .

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
<b>Required Courses</b>		
Greek and/or Latin. Select one or both of the following options: <sup>1</sup>		6-12
FLGK 111 & FLGK 112	Introductory Greek I and Introductory Greek II	
FLLT 111 & FLLT 112	Introductory Latin 1 and Introductory Latin 2	
Select two or three of the following:		6-9
ENGL 301	Classical Greek and Latin Literature	
HIST 430	The Ancient Mediterranean World	
ENGL 222	Mythology-GTAH2	
<b>Total Semester Credit Hours</b>		<b>12-21</b>

<sup>1</sup> Students must take at least six hours in one language.

Code	Title	Semester Credit Hours
<b>Restricted Electives</b>		
Select one to four of the following, depending on the options chosen above:		3-12
POLS 452	Political Theory: Classical and Medieval	
ENGL 335	The Bible as Literature	
ENGL 370	Major Author <sup>1</sup>	
ENGL 386	Roots of Modern Rhetoric	
ENGL 494	Seminar in Literature <sup>1</sup>	
FLAV 290	Special Studies in Foreign Languages <sup>2</sup>	
FLAV 390	Special Studies in Foreign Languages <sup>2</sup>	
HIST 396	Topics <sup>1</sup>	
HIST 435	Classical Archaeology	
HIST 440	Early and Medieval Christianity	
HNRS 396	Topics <sup>1</sup>	
<b>Total Semester Credit Hours</b>		<b>3-12</b>

<sup>1</sup> 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.

<sup>2</sup> FLAV 290 and FLAV 390 are 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 her/his 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 her/his responsibility to consult the Registrar's Office regarding next steps.

## Computer Information Systems Program Description

The Bachelor of Applied Science (BAS) in Computer Information Systems combines technical skills with the business proficiency needed today. A unique program, the BAS allows students who have already earned an AAS to build upon their technical specialties with essential learning courses and junior/senior level computer information coursework. 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 include coursework in data analytics, project management, systems analysis and design, database administration, networking, electronic commerce, 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. 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 2-year degree and then progress to a 4-year degree using the BAS.

The Bachelor of Science (BS) 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 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 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 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 Associate of Arts (AA) degree provides students an overview of computer information systems and business. By earning essential learning credits, the degree also positions students for completion of a four-year degree in business. 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 AA degree with an emphasis in business computer information systems, in addition to providing students with all of their essential learning, 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 are learned. If a student earns an associate's degree, the computer information systems AA provides skills that can be used in the workplace immediately.

The Computer Information Systems Minor allows students majoring in other areas to enhance their degrees with information systems knowledge. Such 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 have a competitive advantage. Additionally, many employees in numerous organizations find themselves daily using computer hardware and software as productivity tools within their positions. The computer information systems minor assists students in learning skills and background information that they will need in all occupations.

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 in the support of business decision making. This certificate addresses the need of today's managers to more fully manage the information systems functions of an organization. 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.

The business department also offers the Bachelor of Business Administration with a concentration in business analytics.

## Contact Information

Department of Business  
Dominguez Hall 301  
970.248.1778

## Programs of Study Bachelors/Minors

- [Business Analytics \(Minor\)](#) (p. 244)
- [Computer Information Systems \(BAS\)](#) (p. 235)
- [Computer Information Systems \(BS\)](#) (p. 237)
- [Computer Information Systems \(Minor\)](#) (p. 244)

## Associates

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## Certificates

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## Computer Information Systems (BAS)

Degree: Bachelor of Applied Science  
Major: Computer Information Systems  
Program Code: 3167

## About This Major . . .

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.
- 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 113	College Algebra-GTMA1 (or higher) <sup>2</sup>	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b>		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

<sup>2</sup> 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
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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
<b>Required Courses</b>		
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
<b>Core Courses</b>		
36 Semester Hours taken as part of a state approved Associate of Applied Science degree		36
<b>Total Semester Credit Hours</b>		<b>75-76</b>

## General Electives

(7-8 semester hours)

Code	Title	Semester Credit Hours
MATH 113	College Algebra-GTMA1	1
Select additional electives <sup>1</sup>		6-7
<b>Total Semester Credit Hours</b>		<b>7-8</b>

<sup>1</sup> 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Computer Information Systems (BS)

Degree: Bachelor of Science  
Major: Computer Information Systems  
Program Code: 3165

## About This Major . . .

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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTC01	3
ENGL 112	English Composition II-GTC02	3
<b>Mathematics</b> <sup>1</sup>		
MATH 113	College Algebra-GTMA1 <sup>2</sup>	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3

<b>Social and Behavioral Sciences</b>	
Select one Social and Behavioral Sciences course	3
Select one Social and Behavioral Sciences course	3
<b>Fine Arts</b>	
Select one Fine Arts course	3
<b>Natural Sciences</b> <sup>3</sup>	
Select one Natural Sciences course	3
Select one Natural Sciences course with a lab	4
<b>Total Semester Credit Hours</b>	<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

<sup>2</sup> This is a 4 credit course. 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.

<sup>3</sup> 7 semester hours, one course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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
<b>Total Semester Credit Hours</b>		<b>12-13</b>

## Program Specific Degree Requirements

(54 semester hours, must earn a grade of "C" or better in each course)

Code	Title	Semester Credit Hours
<b>Core Courses</b>		
<i>Computer Information Systems Core</i>		

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 349	Legal Environment of Business	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
<b>Total Semester Credit Hours</b>		<b>16-17</b>

## 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**



<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Fourth Year</b>		
<b>Fall Semester</b>		
CISB 451	Database Administration	3
BUGB 349	Legal Environment of Business	3
FINA 301	Managerial Finance	3
Essential Learning - Natural Science		3
General Elective		3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
CISB 471	Advanced Information Systems	3
General Electives		10
<b>Semester Credit Hours</b>		<b>13</b>
<b>Total Semester Credit Hours</b>		<b>120</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his 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

## About This Major . . .

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/WCCC 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 computer information topic. (Specialized Knowledge)
2. Recognize mathematical concepts and methods in relation to computer information systems issues. (Quantitative Fluency)
3. Communicate clearly and appropriately basic computer information systems information. (Communication Fluency)
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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTC01	3
ENGL 112	English Composition II-GTC02	3
<b>Mathematics</b> <sup>1</sup>		
MATH 113	College Algebra-GTMA1 <sup>2</sup>	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>3</sup>		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

<sup>2</sup> 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.

<sup>3</sup> 7 semester hours, one course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Total Semester Credit Hours</b>		<b>2</b>

## 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
<b>Required Courses</b>		
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:		
CISB 206	Introduction to Business Application Programming	3
CSCI 111	CS1: Foundations of Computer Science <sup>1</sup>	3
Object Oriented Programming Course approved by CIS advisor		
<b>Total Semester Credit Hours</b>		<b>21</b>

<sup>1</sup> 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
<b>Total Semester Credit Hours</b>		<b>6</b>

## 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
<b>Semester Credit Hours</b>		<b>15</b>
Spring Semester		Semester Credit Hours
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
<b>Semester Credit Hours</b>		<b>15</b>

Second Year

Fall Semester		Semester Credit Hours
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	3
CSCI 111	CS1: Foundations of Computer Science	3
Object Oriented Programming Course approved by CIS advisor		3
Essential Learning - Fine Arts		3

General Elective		3
<b>Semester Credit Hours</b>		<b>15</b>
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Total Semester Credit Hours</b>		<b>60</b>

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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his 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

## About This Program . . .

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
<b>Required Courses</b>		
CISB 205	Advanced Business Software	3
CISB 305	Solving Problems Using Spreadsheets	3
CISB 306	Solving Problems Using Databases	3
<b>Total Semester Credit Hours</b>		<b>9</b>

## Suggested Course Plan

First Year		Semester Credit Hours
<b>Fall Semester</b>		
CISB 205	Advanced Business Software	3
<b>Semester Credit Hours</b>		<b>3</b>
<b>Spring Semester</b>		
CISB 306	Solving Problems Using Databases	3
<b>Semester Credit Hours</b>		<b>3</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
CISB 305	Solving Problems Using Spreadsheets	3
<b>Semester Credit Hours</b>		<b>3</b>
<b>Total Semester Credit Hours</b>		<b>9</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If your petition for graduation is denied, it will be your responsibility to apply for graduation in a subsequent semester. Your "Intent to Graduate" does not automatically move to a later graduation date.

## Business Analytics (Minor)

Minor: Business Analytics  
Program Code: M146

### About This Minor. . .

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
<b>Required Courses</b>		
CISB 205	Advanced Business Software	3
CISB 241	Introduction to Business Analysis <sup>1</sup>	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	
<b>Total Semester Credit Hours</b>		<b>21</b>

- <sup>1</sup> 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 her/his 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 her/his responsibility to consult the Registrar's Office regarding next steps.

## Computer Information Systems (Minor)

Minor: Computer Information Systems  
Program Code: M751

## About This Minor. . .

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
<b>Required Courses</b>		
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 <sup>1</sup>	
<b>Total Semester Credit Hours</b>		<b>21</b>

<sup>1</sup> 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 her/his 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 her/his responsibility to consult the Registrar's Office regarding next steps.

## Computer Science Program Description

Computer science is the study of algorithms and the issues involved in implementing them. The **Bachelor's 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-Grumman, Lockheed-Martin and many other technical companies.

The **Associate of Science 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 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

Confluence Hall  
1410 North 7th Street  
Grand Junction, CO, 81501  
970.248.1400

## Programs of Study Associates

- [Computer Science, Liberal Arts \(AS\)](#) (p. 249)

## Bachelors/Minors

- [Computer Science \(BS\)](#) (p. 246)
- [Computer Science \(Minor\)](#) (p. 251)

## Certificates

- [Data Science \(Professional Certificate\)](#) (p. 252)
- [Web Application Development \(Professional Certificate\)](#) (p. 253)

## Computer Science (BS)

Degree: Bachelor of Science  
Major: Computer Science

Program Code: 3420

## About This Major . . .

Computer science is the study of 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 master's and doctoral studies in computing-related fields. Our graduates have continued on to advanced degrees in top-tier schools and are employed at IBM, Microsoft, Northrup Grumman, Lockheed-Martin, and many other technical 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1,2</sup>		
MATH 151	Calculus I-GT-MA1	3
	or MATH 135	Engineering Calculus I
<b>History</b>		

Select one History course	3
<b>Humanities</b>	
Select one Humanities course	3
<b>Social and Behavioral Sciences</b>	
Select one Social and Behavioral Sciences course	3
Select one Social and Behavioral Sciences course	3
<b>Fine Arts</b>	
Select one Fine Arts course	3
<b>Natural Sciences</b> <sup>3</sup>	
Select one Natural Sciences course with a lab	4
Select one Natural Sciences course	3
<b>Total Semester Credit Hours</b>	<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better. Must be completed by the time the student has 60 semester hours.

<sup>2</sup> 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.

<sup>3</sup> One course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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

(16-18 semester hours)

Code	Title	Semester Credit Hours
CSCI 111	CS1: Foundations of Computer Science	4
CSCI 112	CS2: Data Structures	4
MATH 151	Calculus I-GT-MA1 <sup>1</sup>	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
<b>Total Semester Credit Hours</b>		<b>16-18</b>



<sup>1</sup> 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

41 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
<b>Core Courses</b>		
CSCI 241	Computer Architecture and Assembly Language	4
CSCI 250	CS3: Introduction to Algorithms	3
CSCI 330	Programming Languages	3
CSCI 470	Operating Systems Design	3
CSCI 484	Computer Networks	3
CSCI 490	Software Engineering	3
MATH 369	Discrete Structures I	3
CSCI 310	Advanced Programming <sup>1</sup>	4
<b>Restricted Electives</b>		
Complete 15 semester hours of CSCI 300-level or 400-level courses. MATH 361 will also count as a restricted elective.		15
<b>Total Semester Credit Hours</b>		<b>41</b>

<sup>1</sup> 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 4 hours taken. No language may be counted for credit more than once.

## General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours, which may be 24-26 semester hours. Six hours of upper division may be needed.

Code	Title	Semester Credit Hours
Select electives		24-26
<b>Total Semester Credit Hours</b>		<b>24-26</b>

## Suggested Course Plan

While the sequencing below culminates in a total of 117-122 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		Semester Credit Hours
Fall Semester		
CSCI 111	CS1: Foundations of Computer Science	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
<b>Semester Credit Hours</b>		<b>15-16</b>
<b>Spring Semester</b>		
CSCI 112	CS2: Data Structures	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
<b>Semester Credit Hours</b>		<b>15-16</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
CSCI 250	CS3: Introduction to Algorithms	3
Essential Learning - History		3
Essential Learning - Humanities		3
Essential Learning - Natural Science with Lab		4
Elective		3
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
CSCI 241	Computer Architecture and Assembly Language	4
STAT 200	Probability and Statistics-GTMA1	3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
CSCI 310	Advanced Programming	1
Essential Learning - Natural Science		3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
CSCI 310	Advanced Programming	3
CSCI 330	Programming Languages	3
Essential Learning - Fine Arts		3
Electives		6
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
Restricted Elective		3
Restricted Elective		3
Electives		5-6
MATH 369	Discrete Structures I	3
<b>Semester Credit Hours</b>		<b>14-15</b>
<b>Fourth Year</b>		
<b>Fall Semester</b>		
Restricted Elective		3
Restricted Elective		3
CSCI 484	Computer Networks	3
Electives		6-7
<b>Semester Credit Hours</b>		<b>15-16</b>
<b>Spring Semester</b>		
CSCI 470	Operating Systems Design	3
CSCI 490	Software Engineering	3
Restricted Electives		3
Electives		3-4
<b>Semester Credit Hours</b>		<b>12-13</b>
<b>Total Semester Credit Hours</b>		<b>117-122</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his 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

### About This Major . . .

Computer science is the study of algorithms and the issues involved in implementing them. 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/WCCC 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. Write programs in a general purpose programming language (Specialized Knowledge/Applied Learning)
2. Develop a software solution to a problem given a technical specification (Specialized Knowledge)
3. Demonstrate an understanding of computer hardware (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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 113	College Algebra-GTMA1 <sup>2</sup>	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>3</sup>		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

<sup>2</sup> 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.

<sup>3</sup> 7 semester hours, one course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Total Semester Credit Hours</b>		<b>2</b>

## Program Specific Degree Requirements

(21 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
<b>Core Classes</b>		
CSCI 111	CS1: Foundations of Computer Science	4
CSCI 112	CS2: Data Structures	4

CSCI 206	Web Page Design II	3
CSCI 241	Computer Architecture and Assembly Language	4
CSCI 250	CS3: Introduction to Algorithms	3
CSCI 260	Introduction to Database	3

**Total Semester Credit Hours** 21

## General Electives

(6 Semester Hours)

Code	Title	Semester Credit Hours
MATH 113	College Algebra-GTMA1	1
Electives <sup>1</sup>		5
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> MATH 119, MATH 151/MATH 135, and/or MATH 152/MATH 136 are strongly recommended, particularly for those students who are considering going on to the Bachelor of Science in Computer Science degree.

## Suggested Course Plan

First Year	Semester Credit Hours	
<b>Fall Semester</b>		
ENGL 111	English Composition I-GTCO1	3
MATH 113	College Algebra-GTMA1	4
CSCI 111	CS1: Foundations of Computer Science	4
Essential Learning - Social and Behavioral Sciences		3
KINE 100	Health and Wellness	1
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
ENGL 112	English Composition II-GTCO2	3
CSCI 112	CS2: Data Structures	4
Essential Learning - Fine Arts		3
Essential Learning - Social and Behavioral Sciences		3
General Elective		3
<b>Semester Credit Hours</b>		<b>16</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
CSCI 250	CS3: Introduction to Algorithms	3
CSCI 260	Introduction to Database	3
Essential Learning - History		3
Essential Learning - Natural Science with lab		4
Wellness Requirement - Activities Course		1
<b>Semester Credit Hours</b>		<b>14</b>
<b>Spring Semester</b>		
CSCI 206	Web Page Design II	3
CSCI 241	Computer Architecture and Assembly Language	4
Essential Learning - Natural Science without lab		3
Essential Learning - Humanities		3
Elective		2
<b>Semester Credit Hours</b>		<b>15</b>
<b>Total Semester Credit Hours</b>		<b>60</b>

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 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Computer Science (Minor)

Minor: Computer Science  
Program Code: M450

### About This Minor. . .

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
<b>Required Courses</b>		
CSCI 111 or CSCI 130	CS1: Foundations of Computer Science Introduction to Engineering Computer Science	4
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	Web Page Design II	
CSCI 260	Introduction to Database	
Select three of the following:		9

CSCI 306	Web Page Design III
CSCI 310	Advanced Programming <sup>1</sup>
CSCI 322	Embedded Systems
CSCI 333	UNIX Operating Systems
CSCI 337	User Interface Design
CSCI 375	Object Oriented Programming
CSCI 460	Database Design

**Total Semester Credit Hours** **23-24**

<sup>1</sup> 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 her/his 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 her/his 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

### About This Program . . .

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 critical thinking, communication fluency, quantitative fluency, and specialized knowledge/applied learning. 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 CIBS 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 <sup>1</sup>	
MATH 361	Numerical Analysis <sup>2</sup>	
MATH 362	Fourier Analysis <sup>2</sup>	
STAT 435	Introduction to Time Series	
<b>Total Semester Credit Hours</b>		<b>21</b>

<sup>1</sup> Since CISB 241/STAT 241 are equivalent courses, either may be used to satisfy the prerequisite.

<sup>2</sup> 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
<b>Semester Credit Hours</b>		<b>9</b>

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	
STAT 435	Introduction to Time Series	
<b>Semester Credit Hours</b>		<b>9</b>

Second Year

Spring Semester

CSCI 425	Python Machine Learning	3
<b>Semester Credit Hours</b>		<b>3</b>
<b>Total Semester Credit Hours</b>		<b>21</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If your petition for graduation is denied, it will be your responsibility to apply for graduation in a subsequent semester. Your "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

### About This Program...

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 critical thinking, communication fluency, quantitative fluency, and specialized knowledge/applied learning. 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	Web Page Design II <sup>1</sup>	3
CSCI 260	Introduction to Database	3
CSCI 306	Web Page Design III	3
CSCI 310	Advanced Programming (Python) <sup>2</sup>	2
CSCI 310	Advanced Programming (Data Sciences with Python)	2
CSCI 337	User Interface Design	3
<b>Total Semester Credit Hours</b>		<b>16</b>

- <sup>1</sup> It is assumed that students are familiar with basic HTML and CSS; otherwise the students will need to take CSCI 106.
- <sup>2</sup> 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		Semester Credit Hours
<b>Fall Semester</b>		
CSCI 206	Web Page Design II <sup>1</sup>	3
CSCI 260	Introduction to Database	3
<b>Semester Credit Hours</b>		<b>6</b>
<b>Spring Semester</b>		
CSCI 306	Web Page Design III	3
CSCI 310	Advanced Programming (Python) <sup>2</sup>	2
<b>Semester Credit Hours</b>		<b>5</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
CSCI 310	Advanced Programming (Data Science with Python)	2
CSCI 337	User Interface Design	3
<b>Semester Credit Hours</b>		<b>5</b>
<b>Total Semester Credit Hours</b>		<b>16</b>

- <sup>1</sup> It is assumed that students are familiar with basic HTML and CSS; otherwise the students will need to take CSCI 106.
- <sup>2</sup> 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If your petition for graduation is denied, it will be your responsibility to apply for graduation in a subsequent semester. Your "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. 255)

### Communication Studies (Minor)

Minor: Communication Studies  
Program Code: M251

### About This Minor. . .

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. Enhance your résumé — a communication studies minor gives you communication credibility to open many doors.

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.

### Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

**To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options."** This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option 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 Communications	3
SPCH 102	Speechmaking	3
SPCH 203	Persuasion	3
SPCH 308	Argumentation and Debate	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	
THEA 403	Methods of Teaching Drama and Speech	
<b>Total Semester Credit Hours</b>		<b>18</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 her/his 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 her/his responsibility to consult the Registrar's Office regarding next steps.

## 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

Office of Student Services  
WCCC, Bishop B102  
2508 Blichmann Avenue

970.255.2670

## Programs of Study

### Associates

- [Construction Electrical \(AAS\)](#) (p. 256)

## Certificates

- [Construction Electrical \(Technical Certificate\)](#) (p. 258)

## Construction Electrical (AAS)

Degree: Associate of Applied Science  
Major: Construction Electrical  
Program Code: 1392

## About This Major . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Communication</b>		
ENGL 111	English Composition I-GTC01	3
SPCH 101	Interpersonal Communications	3
<b>Mathematics</b>		
MATH 108	Technical Mathematics	4
<b>Other Essential Learning Core Courses</b>		
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
<b>Total Semester Credit Hours</b>	<b>16</b>

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Total Semester Credit Hours</b>		<b>2</b>

## Program Specific Degree Requirements

(46 semester hours, must earn a grade of "C" or better in each course.)

Code	Title	Semester Credit Hours
<b>Required Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>46</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
ELCE 102	Electrical Blueprint Reading	4
ELCE 110	House Wiring	4
ELCE 150	DC Circuit Fundamentals	4
MATH 108	Technical Mathematics	4
KINE 100	Health and Wellness	1
<b>Semester Credit Hours</b>		<b>17</b>
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
<b>Semester Credit Hours</b>		<b>15</b>

## 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
<b>Semester Credit Hours</b>		<b>16</b>

## Spring Semester

ELCE 167	Electrical Maintenance	4
ELCE 220	Industrial Controls	4
ELCE 229	AC/DC Variable Speed Drive	2
SPCH 101	Interpersonal Communications	3
Essential Learning Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
<b>Semester Credit Hours</b>		<b>16</b>
<b>Total Semester Credit Hours</b>		<b>64</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

# Construction Electrical (Technical Certificate)

Award: Technical Certificate

Program of Study: Construction Electrical

Program Code: 1316

## About This Program . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Required Courses</b>		
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	4
<b>Total Semester Credit Hours</b>		<b>30</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
ELCE 102	Electrical Blueprint Reading	4
ELCE 110	House Wiring	4
ELCE 150	DC Circuit Fundamentals	4
MATH 108	Technical Mathematics	4
<b>Semester Credit Hours</b>		<b>16</b>
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
<b>Semester Credit Hours</b>		<b>14</b>
<b>Total Semester Credit Hours</b>		<b>30</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## 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, insuring 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. Graduates of the construction management program will possess an OSHA 10-hour safety card upon graduation.

## Contact Information

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. 260)
- [Construction Management \(BS\)](#) (p. 260)

## 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.

We are affiliated with Western Colorado Community College (WCCC) which offers an Associates of Applied Science (A.A.S.) degree in [Construction Technology](#). The Construction Management program has been articulated with WCCC's Construction Technology program, allowing a student with an earned A.A.S. degree to easily transition into the bachelors of science degree in construction management at Colorado Mesa University. For more information about the Construction Management Program please see [Construction Management Program Information](#).

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

### About This Major . . .

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, insuring the project is completed on time and within budget. They are also responsible for the safety of the work environment. Graduates of the Construction Management program will possess an OSHA 10-hour safety card upon graduation.

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. Apply business knowledge and skills in appropriate business contexts and transfer knowledge and skills to new business situations. (Critical Thinking)
2. Produce professional business work products, independently and working as a team. (Applied Learning)
3. Communicate clearly, appropriately, and persuasively to the business audience, both orally and in writing. (Communication Fluency)
4. Integrate knowledge from multiple functional areas of business to solve business problems and to develop sound business strategies. (Specialized Knowledge)
5. Analyze business data critically, reason logically, and apply quantitative analysis methods correctly to develop appropriate business conclusions. (Quantitative Fluency)
6. Properly and appropriately use information systems tools and techniques within functional business areas. (Applied Learning)
7. Identify, formulate, and solve construction related problems by applying mathematics, science, and business principles. (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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 113	College Algebra-GTMA1 (or higher) <sup>2</sup>	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
ECON 201	Principles of Macroeconomics-GTSS1	3
ECON 202	Principles of Microeconomics-GTSS1	3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>3</sup>		
PHYS 111	General Physics-GTSC1 <sup>2</sup>	3
PHYS 111L	General Physics Laboratory-GTSC1	1
Select one Natural Sciences course		3
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> This is a 4 semester credit hour course. 3 credits apply to the Essential Learning requirements and 1 credit applies to general elective credit.

<sup>3</sup> One course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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 130	Trigonometry	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
<b>Total Semester Credit Hours</b>		<b>27</b>

## Program Specific Degree Requirements

(46 semester hours, must earn a "C" or better in each course)

Code	Title	Semester Credit Hours
<b>Core Courses</b>		
BUGB 349	Legal Environment of Business	3
FINA 301	Managerial Finance	3
HRMA 371	Human Resource Management <sup>1</sup>	3
CONM 234	Graphic Communication for Construction Management	3
<b>Concentration Courses</b>		
CONM 181	Principles of Construction Management	3
CONM 316	Construction Materials and Methods	3
CONM 340	Construction Estimating and Bidding	3
CONM 361	Advanced MEP Systems	3
CONM 362	Structure Analysis - Statics/Materials Strength	3
CONM 370	Managing Safety and the Regulatory Environment	3
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
<b>Total Semester Credit Hours</b>		<b>43</b>

Code	Title	Semester Credit Hours
<b>Restricted Elective</b>		
Select one of the following:		3
CONM 485	Construction Management Issues	
CONM 495	Independent Study	
CONM 499	Construction Internship	
<b>Total Semester Credit Hours</b>		<b>3</b>

<sup>1</sup> 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-GTSC1	1
Select additional electives		8
<b>Total Semester Credit Hours</b>		<b>10</b>

## Suggested Course Plan

First Year		Semester Credit Hours
<b>Fall Semester</b>		
ENGL 111	English Composition I-GTC01	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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
Essential Learning - Humanities		3
ENGL 112	English Composition II-GTC02	3
CONC 161	Building Mechanical/Electrical	3
CONC 208	Construction Equipment	3
KINE 100	Health and Wellness	1
KINA Activity		1
<b>Semester Credit Hours</b>		<b>14</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
ACCT 201	Principles of Financial Accounting	3
ECON 201	Principles of Macroeconomics-GTSS1	3
CONM 234	Graphic Communication for Construction Management	3
CONC 228	Estimating and Cost Control	3
PHYS 111 & 111L	General Physics-GTSC1 and General Physics Laboratory-GTSC1	5
<b>Semester Credit Hours</b>		<b>17</b>
<b>Spring Semester</b>		
MATH 130	Trigonometry	3
CONC 218	Surveying	3
ECON 202	Principles of Microeconomics-GTSS1	3
Essential Learning - Natural Science		3
General Elective		3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
CONM 362	Structure Analysis - Statics/Materials Strength	3
CONM 340	Construction Estimating and Bidding	3
CONM 316	Construction Materials and Methods	3
CONM 370	Managing Safety and the Regulatory Environment	3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
HRMA 371	Human Resource Management	3
STAT 200	Probability and Statistics-GTMA1	3
CONM 361	Advanced MEP Systems	3
CONM 380	Construction Project Management	3
BUGB 349	Legal Environment of Business	3
<b>Semester Credit Hours</b>		<b>15</b>

**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

<b>Semester Credit Hours</b>		<b>15</b>
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**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 <sup>1</sup>		3
General Elective		2

<b>Semester Credit Hours</b>		<b>12</b>
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<b>Total Semester Credit Hours</b>		<b>120</b>
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<sup>1</sup> 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 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his 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.

## Contact Information

Office of Student Services  
WCCC, Bishop B102  
2508 Blichmann Avenue  
970.255.2670

## Programs of Study

### Associates

- [Supervision, Construction Technology \(AAS\)](#) (p. 263)

## Supervision, Construction Technology (AAS)

Degree: Associate of Applied Science  
Major: Construction Technology  
Emphasis: Supervision  
Program Code: 1372

## About This Major . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Communication</b>		
ENGL 111	English Composition I-GTC01	3
Select one of the following:		
ENGL 112	English Composition II-GTC02	3
SPCH 101	Interpersonal Communications	
SPCH 102	Speechmaking	
<b>Mathematics</b>		
MATH 107	Career Math	3
<b>Other Essential Learning Core Courses</b>		
ECON 201	Principles of Macroeconomics-GTSS1	3
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		
<b>Total Semester Credit Hours</b>		<b>15</b>

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		
<b>Total Semester Credit Hours</b>		<b>2</b>

## Program Specific Degree Requirements

(46 semester hours, must earn a "C" or better in each course)

Code	Title	Semester Credit Hours
<b>Core Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>37</b>

Code	Title	Semester Credit Hours
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**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-GTSC1 and General Physics Laboratory-GTSC1
STAT 200	Probability and Statistics-GTMA1
MARK 231	Principles of Marketing
FLAS Spanish	
<b>Total Semester Credit Hours</b>	<b>9</b>

**Suggested Course Plan****First Year****Fall Semester**

		Semester Credit Hours
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
<b>Semester Credit Hours</b>		<b>16</b>

**Spring Semester**

Select one of the following:

ENGL 112	English Composition II-GTCO2	3
SPCH 101	Interpersonal Communications	3
SPCH 102	Speechmaking	3
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
<b>Semester Credit Hours</b>		<b>17</b>

**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
<b>Semester Credit Hours</b>		<b>15</b>

<b>Spring Semester</b>		
CONC 245	Project Management	3
Restricted Elective		3
Restricted Elective		3
Restricted Elective		3
CADT 106	Computer Aided Design	3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Total Semester Credit Hours</b>		<b>63</b>

**Advising and Graduation  
Advising Process and DegreeWorks**

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

**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 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 law enforcement, courts, 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 in Criminal Justice combines the POST requirements of the AAS degree 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 police academy program at Western Colorado Community College (WCCC) 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 law enforcement 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 - criminal justice 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, 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 WCCC. (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.

## Contact Information

Associate Degree:  
Office of Student Services  
WCCC, Bishop B102

2508 Blichmann Avenue  
970.255.2670

Baccalaureate Degree:  
Department of Social and Behavioral Sciences  
Lowell Heiny Hall 413  
970.248.1696

## Programs of Study Associates

- [Criminal Justice \(AAS\)](#) (p. 273)

## Bachelors/Minors

- [Criminal Justice \(BA\)](#) (p. 266)
- [Criminal Justice \(Minor\)](#) (p. 275)
- [Forensic Investigation - Criminal Justice \(Minor\)](#) (p. 276)
- [POST Academy, Criminal Justice \(BAS\)](#) (p. 269)

## Graduate

- [Criminal Justice Leadership and Policy \(MA\)](#) (p. 277)

## Criminal Justice (BA)

Degree: Bachelor of Arts  
Major: Criminal Justice  
Program Code: 3706

## About This Major . . .

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.

## 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 110	Mathematical Investigations-GTMA1 (or higher)	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b> <sup>2</sup>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>3</sup>		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> Recommended: POLS 101, PSYC 150, SOCO 260, or SOCO 264.

<sup>3</sup> One course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3

ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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
<b>Total Semester Credit Hours</b>		<b>10</b>

FLAS 114 & FLAS 115 will NOT fulfill this requirement.

## 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
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### 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: <sup>1</sup> 12-13

#### Policing

CRMJ 210	Emergency Dispatching	
CRMJ 335	Community Policing	
CRMJ 280 & 280L	Crime Scene Processing and Crime Scene Processing Laboratory	
CRMJ 410	Criminal Investigations	
CRMJ 415	Counter-Terrorism 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 445	Media and Crime	

**Total Semester Credit Hours 37-38**

<sup>1</sup> Criminal Justice Electives taken beyond the required 12-13 semester hours can also satisfy the restricted elective requirement.

Code	Title	Semester Credit Hours
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### 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. <sup>1</sup>

**Total Semester Credit Hours 9-10**

<sup>1</sup> 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
<b>Semester Credit Hours</b>		<b>15</b>

### 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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
Foundation Course - Foreign Language		
STAT 215	Statistics for Social and Behavioral Sciences	4
Essential Learning - Social/Behavioral Sciences		
Essential Learning - History		
Essential Learning - Humanities		
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
Foundation Course - Foreign Language		
Essential Learning - Fine Arts		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Essential Learning - Social/Behavioral Sciences		
CRMJ 315	Research Methods in Criminal Justice	3
<b>Semester Credit Hours</b>		<b>16</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
CRMJ 302	Ethics in Criminal Justice	3
Criminal Justice Elective - Policing		
Criminal Justice Elective - Courts		
Criminal Justice Elective - Corrections		
Criminal Justice Restricted Elective		
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
CRMJ 370	Criminology	3
Criminal Justice Elective - Criminal Justice Theory		
General Elective		
Restricted Electives (2 courses)		
<b>Semester Credit Hours</b>		<b>15</b>
<b>Fourth Year</b>		
<b>Fall Semester</b>		
Restricted Elective		
General Electives (4 courses)		
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
Capstone Course		
General Electives (3 courses)		
<b>Semester Credit Hours</b>		<b>12</b>
<b>Total Semester Credit Hours</b>		<b>120</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his 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

## About This Major . . .

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.
- 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 110	Mathematical Investigations-GTMA1	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b> <sup>2</sup>		
Select one Social and Behavioral Sciences course		3

Select one Social and Behavioral Sciences course	3
<b>Fine Arts</b>	
Select one Fine Arts course	3
<b>Natural Sciences</b> <sup>3</sup>	
Select one Natural Sciences course	3
Select one Natural Sciences course with a lab	4
<b>Total Semester Credit Hours</b>	<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> Recommended: POLS 101, PSYC 150, SOCO 260, or SOCO 264.

<sup>3</sup> One course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
KINA 127	Physical Conditioning <sup>1</sup>	1
<b>Essential Learning Capstone</b> <sup>2</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> Must be taken simultaneously with POST Academy.

<sup>2</sup> 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

(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
<b>Core Courses</b>		
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
<b>Capstone</b>		
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	
<b>Criminal Justice Electives</b>		
Select at least one course from each subfield: <sup>1</sup>		12-13
<b>Policing</b>		
CRMJ 210	Emergency Dispatching	
CRMJ 280 & 280L	Crime Scene Processing and Crime Scene Processing Laboratory	
CRMJ 335	Community Policing	
CRMJ 410	Criminal Investigations	
CRMJ 415	Counter-Terrorism and Law Enforcement	
CRMJ 435	White-Collar Crimes	
<b>Courts</b>		
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	
<b>Corrections</b>		
CRMJ 340	Community Corrections	
CRMJ 440	Capital Punishment	
CRMJ 470	Restorative Justice	
CRMJ 480	Inside-Out Prison Exchange	
<b>Criminal Justice Theory</b>		
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 445	Media and Crime	
<b>Total Semester Credit Hours</b>		<b>37-38</b>

<sup>1</sup> Criminal Justice Electives take beyond the required 12-13 semester hours can also satisfy the restricted elective requirement.

Code	Title	Semester Credit Hours
<b>Restricted Electives</b>		
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. <sup>1</sup>		6
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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
<b>POST Academy</b> <sup>1</sup>		
CRJW 101	Basic Police Academy	6



CRJW 102	Basic Police Academy II	10
CRJW 105	Basic Law	6
CRJW 106	Arrest Control	3
CRJW 107	Law Enforcement Driving	2
CRJW 108	Firearms	3
<b>Total Semester Credit Hours</b>		<b>30</b>

<sup>1</sup> 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		Semester Credit Hours
Fall Semester		
ENGL 111	English Composition I-GTC01	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
<b>Semester Credit Hours</b>		<b>15</b>
Spring Semester		
ENGL 112	English Composition II-GTC02	3
Essential Learning - Mathematics		3
CRMJ 328	American Court Systems	3
CRMJ 310	The Police Process	3
CRMJ 320	Corrections	3
<b>Semester Credit Hours</b>		<b>15</b>
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
<b>Semester Credit Hours</b>		<b>16</b>
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
<b>Semester Credit Hours</b>		<b>16</b>
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
<b>Semester Credit Hours</b>		<b>15</b>

Spring Semester		
CRMJ 370	Criminology	3
Criminal Justice Elective - Criminal Justice Theory		3
Capstone Course		3
Restricted Elective		3
<b>Semester Credit Hours</b>		<b>12</b>

Fourth Year		
Fall Semester		
CRJW 101	Basic Police Academy	6
CRJW 102	Basic Police Academy II	10
CRJW 105	Basic Law	6
CRJW 106	Arrest Control	3
CRJW 107	Law Enforcement Driving	2
CRJW 108	Firearms	3
KINA 127	Physical Conditioning	1
<b>Semester Credit Hours</b>		<b>31</b>
Spring Semester		
Open		
<b>Semester Credit Hours</b>		<b>0</b>
<b>Total Semester Credit Hours</b>		<b>120</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Criminal Justice (AAS)

Degree: Associate of Applied Science  
Major: Criminal Justice  
Program Code: 1360

### About This Major . . .

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 Western Colorado Community College 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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. Illustrate communication and writing skills that are formal and professional in nature. (Communication Fluency)
2. Apply mathematical concepts required of entry level law enforcement and criminal justice professionals. (Quantitative Fluency)
3. Demonstrate critical thinking skills by evaluating and analyzing contemporary issues in law enforcement and criminal justice using knowledge of criminal justice concepts, terminology, and theories. (Critical Thinking)
4. Demonstrate specialized and holistic knowledge of the Criminal Justice system and the law enforcement profession. (Specialized Knowledge)
5. Demonstrate proficiency in basic skills required for entry level law enforcement and criminal justice professionals. (Applied Learning)
6. Examine ethical standards and practices, specific to law enforcement, the courts, and corrections. (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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Communication</b>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
	or SPCH 102 Speechmaking	
<b>Mathematics</b>		
MATH 108	Technical Mathematics (or higher) <sup>1,2</sup>	3
<b>Other Essential Learning Core Courses</b>		
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	
<b>Total Semester Credit Hours</b>		<b>15</b>

<sup>1</sup> 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.

<sup>2</sup> MATH 110 or higher is required for BA or BAS in Criminal Justice.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
KINA 127	Physical Conditioning <sup>1</sup>	1
<b>Total Semester Credit Hours</b>		<b>2</b>

<sup>1</sup> 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	6
CRJW 102	Basic Police Academy II	10
CRJW 105	Basic Law	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 Communications	3
POLS 101	American Government-GTSS1	3
SOCO 264	Social Problems-GTSS3	3
<b>Total Semester Credit Hours</b>		<b>43</b>

## 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		Semester Credit Hours
Fall Semester		
ENGL 111	English Composition I-GTCO1	3
SPCH 101	Interpersonal Communications	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
<b>Semester Credit Hours</b>		<b>15</b>

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) <sup>1</sup>	3-4
KINE 100	Health and Wellness	1
<b>Semester Credit Hours</b>		<b>14-15</b>

Second Year		
Fall Semester		
CRJW 101	Basic Police Academy	6
CRJW 102	Basic Police Academy II	10
CRJW 105	Basic Law	6
CRJW 106	Arrest Control	3
CRJW 107	Law Enforcement Driving	2
CRJW 108	Firearms	3
KINA 127	Physical Conditioning	1
<b>Semester Credit Hours</b>		<b>31</b>
<b>Total Semester Credit Hours</b>		<b>60-61</b>

<sup>1</sup> 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 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Criminal Justice (Minor)

Minor: Criminal Justice  
Program Code: M701

### About This Minor. . .

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
<b>Core Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>18</b>

Code	Title	Semester Credit Hours
<b>Restricted Electives</b>		
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	Counter-Terrorism 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	
<b>Total Semester Credit Hours</b>		<b>6</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 her/his responsibility to consult the Registrar's Office regarding next steps.

## Forensic Investigation - Criminal Justice (Minor)

Minor: Forensic Investigation - Criminal Justice  
Program Code: M717

### About This Minor. . .

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
<b>Core Courses <sup>1</sup></b>		
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 425	Trial, Evidence and Legal Advocacy	
<b>Total Semester Credit Hours</b>		<b>24</b>

<sup>1</sup> 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 her/his 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 her/his responsibility to consult the Registrar's Office regarding next steps.

## Criminal Justice Leadership and Policy (MA)

Degree: Master of Art

Major: Criminal Justice Leadership and Policy

Program Code: 8701

### About This Program . . .

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. 81)" 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
<i>Core Courses (18 Hours)</i>		
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
<b>Elective Courses (12 Hours Total)</b>		
<i>Two courses from the following: (6 Hours)</i>		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	
<i>Two courses from the following: (6 Hours)</i>		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	
<i>Master's Culminating Experience (3 Hours)</i>		
CRMJ 593	Master's Culminating Experience	3
<b>Other Requirements</b>		
Completion of Culminating Experience		
<b>Total Semester Credit Hours</b>		<b>33</b>

## Suggested Course Plan

Code	Title	Semester Credit Hours
<b>First Year</b>		
<b>Fall Semester</b>		
Mod 1 (3 Hours)		
CRMJ 511	Foundational Seminar	3
Mod 2 (3 Hours)		
CRMJ 512	Public Policy Analysis	3
<b>Semester Credit Hours</b>		<b>6</b>
<b>Spring Semester</b>		
Mod 1 (3 Hours)		
CRMJ 515	Advanced Criminological Theory	3
Mod 2 (3 Hours)		
CRMJ 513	Ethics in Criminal Justice Leadership	3
<b>Semester Credit Hours</b>		<b>6</b>
<b>Summer Semester</b>		
Mod 1 (3 Hours)		
CRMJ 516	Leadership in Criminal Justice	3
Mod 2 (3 Hours)		
CRMJ 5XX Elective		3
<b>Semester Credit Hours</b>		<b>6</b>

### Second Year

#### Fall Semester

Mod 1 (3 Hours)		
CRMJ 514	Research Methods and Data Analysis	3
Mod 2 (3 Hours)		
CRMJ 5XX Elective Course		3
<b>Semester Credit Hours</b>		<b>6</b>

#### Spring Semester

Mod 1 (3 Hours)		
CRMJ 5XX Elective Course		3
Mod 2 (3 Hours)		
CRMJ 5XX Elective Course		3
<b>Semester Credit Hours</b>		<b>6</b>

#### Summer Semester

Mod 1 (3 Hours)		
CRMJ 593	Master's Culminating Experience <sup>1</sup>	3
<b>Semester Credit Hours</b>		<b>3</b>
<b>Total Semester Credit Hours</b>		<b>33</b>

- <sup>1</sup> 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If your petition for graduation is denied, it will be your responsibility to apply for graduation in a subsequent semester. Your "Intent to Graduate" does not automatically move to a later graduation date.

## 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

Office of Student Services  
WCCC, Bishop B102  
2508 Blichmann Avenue  
970.255.2670

### Programs of Study

See also [Baking and Pastry](#) (p. 154).

### Associates

- [Culinary Arts \(AAS\)](#) (p. 279)

### Certificates

- [Food Preparation \(Technical Certificate\)](#) (p. 281)

## Culinary Arts (AAS)

Degree: Associate of Applied Science  
Major: Culinary Arts  
Program Code: 1350

### About This Major . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Communication</b>		
ENGL 111	English Composition I-GTCO1	3
Select one of the following courses:		
ENGL 112	English Composition II-GTCO2	3
SPCH 101	Interpersonal Communications	
SPCH 102	Speechmaking	
<b>Mathematics</b>		
MATH 107	Career Math (or higher)	3
<b>Other Essential Learning Core Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>15</b>

**Other Lower Division Requirements**

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Total Semester Credit Hours</b>		<b>2</b>

**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.

Code	Title	Semester Credit Hours
<b>Core Courses</b>		
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 179	Wines, Spirits and Beers	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
or HMGT 200	Management and Supervisory Skills for the Hospitality Industry	
CUAR 262	Purchasing for the Hospitality Industry	3
CUAR 293	Restaurant Operations Practicum	4
<b>Total Semester Credit Hours</b>		<b>45</b>

**Suggested Course Plan**

First Year		Semester Credit Hours
Fall Semester		
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
<b>Semester Credit Hours</b>		<b>17</b>
Spring Semester		
CUAR 115	Introduction to Sustainable Cuisine	3
CUAR 129	Center of the Plate (1st Mod)	3
CUAR 179	Wines, Spirits and Beers	3
CUAR 238	American Regional Cuisine (2nd Mod)	3
CUAR 262	Purchasing for the Hospitality Industry	3
<b>Semester Credit Hours</b>		<b>15</b>
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 Communications	
SPCH 102	Speechmaking	
<b>Semester Credit Hours</b>		<b>15</b>
Spring Semester		
CUAR 255	Supervision in the Hospitality Industry	3
or HMGT 200	or Management and Supervisory Skills for the Hospitality Industry	
CUAR 293	Restaurant Operations Practicum	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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Total Semester Credit Hours</b>		<b>62</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Food Preparation (Technical Certificate)

Award: Technical Certificate  
Program of Study: Food Preparation  
Program Code: 1142

### About This Program . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Required Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>17</b>

## 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
<b>Semester Credit Hours</b>		<b>11</b>

Spring Semester

CUAR 115	Introduction to Sustainable Cuisine	3
CUAR 129	Center of the Plate (1st Mod)	3
<b>Semester Credit Hours</b>		<b>6</b>
<b>Total Semester Credit Hours</b>		<b>17</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Cyber Security

### Program Description

#### Professional Certificate in Cyber Security

The Professional Certificate in Cyber Security 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

Confluence Hall  
1410 North 7th Street  
Grand Junction, CO, 81501  
970.248.1400

## Programs of Study Bachelors/Minors

- [Cybersecurity \(Minor\)](#) (p. 284)

## Certificates

- [Cyber Security \(Professional Certificate\)](#) (p. 283)

# Cyber Security (Professional Certificate)

Award: Professional Certificate  
Program of Study: Cyber Security  
Major Code: 1364

## About This Program . . .

The certificate in Cyber Security 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 critical thinking, communication fluency, quantitative fluency, and specialized knowledge/applied learning. 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 cyber security. (Communication Fluency)
5. Demonstrate independent learning and use of new technologies in cyber security. (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
<b>Required Courses</b>		
CSCI 370	Computer Security <sup>1</sup>	3
CSCI 420	Software Security	3
CSCI 465	Network/Application Security	3
<b>Total Semester Credit Hours</b>		<b>9</b>

<sup>1</sup> Consult with a Computer Science faculty advisor regarding prerequisite classes that might be necessary to take.

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
CSCI 370	Computer Security	3
<b>Semester Credit Hours</b>		<b>3</b>
Spring Semester		
CSCI 420	Software Security	3
<b>Semester Credit Hours</b>		<b>3</b>
Second Year		
Fall Semester		
CSCI 465	Network/Application Security	3
<b>Semester Credit Hours</b>		<b>3</b>
<b>Total Semester Credit Hours</b>		<b>9</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If your petition for graduation is denied, it will be your responsibility to apply for graduation in a subsequent semester. Your "Intent to Graduate" does not automatically move to a later graduation date.

## Cybersecurity (Minor)

Minor: Cybersecurity  
Program Code: M451

### About This Minor. . .

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 221	Introduction to Digital Forensics	3
CSCI 370	Computer Security	3
CISB 311	Fundamentals of Cloud Security	3
CSCI 420	Software Security	3
CSCI 465	Network/Application Security	3
<b>Total Semester Credit Hours</b>		<b>18</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 her/his 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 her/his responsibility to consult the Registrar's Office regarding next steps.

## Dance

### Program Description

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 dance.

Dance at CMU is thriving, with an array of dance styles, performance opportunities and travel. Equal emphasis is placed on Modern, Jazz, Ballet and Tap with course offerings from beginner to advanced levels. Other courses include Hip Hop, Ballroom, Dance Composition, Improvisation, Pedagogy, Dance History and Philosophy, Music Analysis, Healthy Dancer and Repertory Performance. Dance at Colorado Mesa University features courses with an emphasis on physical inquiry and cultural relevance in diverse dance forms with faculty that value and teach methods of embodied awareness, strong technical foundation, and performance as a practice.

The faculty members have professional backgrounds across multiple forms of dance. With four dance concerts a year, Colorado Mesa University faculty and students choreograph and invite visiting guest artists from the professional dance world. Students annually travel to American College Dance Association, conferences, and engage in local and state outreach.

The BFA 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. With smaller class sizes, students are given the personal attention and mentorship that will better prepare them for careers in the field of dance.

### 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 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.

## Contact Information

Department of Theatre Arts  
Moss Performing Arts Center 141  
970.248.1242

## Programs of Study Bachelors/Minors

- [Dance \(BFA\)](#) (p. 285)
- [Dance \(Minor\)](#) (p. 288)

## Dance (BFA)

Degree: Bachelor of Fine Arts

Major: Dance

Program Code: 3267

### About This Major . . .

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)

## Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

**To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options."** This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option 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
<b>English <sup>1</sup></b>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics <sup>1</sup></b>		
MATH 110	Mathematical Investigations-GTMA1	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences <sup>2</sup></b>		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> One course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone <sup>1</sup></b>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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	The Healthy Dancer	3
Two consecutive classes in the same foreign language <sup>1</sup>		6
<b>Total Semester Credit Hours</b>		<b>12</b>

<sup>1</sup> 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
<b>Core Courses</b>		
<i>Dance Core</i>		
DANC 250	Dance Improvisation	2
DANC 255	Choreography	3
DANC 310	Dance Pedagogy	3
DANC 315	History and Philosophy of Dance I	3
DANC 316	History and Philosophy of Dance II	3
DANC 328	Music Analysis for Dance	3
THEA 401	Career Preparation	3
DANC 494	Senior Dance Capstone	3
<i>Ballet Technique Courses</i>		
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	
<i>Jazz Technique Courses</i>		
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	
<i>Tap Technique Courses</i>		
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	
<i>Modern Technique Courses</i>		
Select three of the following:		6
DANC 183	Modern I	
DANC 230	Modern IIA	
DANC 231	Modern IIB	
DANC 330	Modern IIIA	
DANC 331	Modern IIIB	
DANC 430	Modern IVA	
DANC 431	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 Practicum I	
DANC 390	Choreography Practicum II	
DANC 490	Choreography Practicum 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
<b>Total Semester Credit Hours</b>		<b>13</b>

## Suggested Course Plan

### First Year

Fall Semester	Semester Credit Hours	
ENGL 111	English Composition I-GTC01	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
<b>Semester Credit Hours</b>		<b>14</b>

### Spring Semester

ENGL 112	English Composition II-GTC02	3
Essential Learning - History		3
Essential Learning - Fine Arts		3
KINA Activity		1
Performance Option		1
Dance Technique Course		2
Dance Technique Course		2
<b>Semester Credit Hours</b>		<b>15</b>

### Second Year

Fall Semester	Semester Credit Hours	
Essential Learning - Social and Behavioral Sciences		3
Foundation Course - Foreign Language		3
DANC 225	The Healthy Dancer	3
DANC 250	Dance Improvisation	2
Dance Technique Course		2
Dance Technique Course		2
<b>Semester Credit Hours</b>		<b>15</b>



<b>Spring Semester</b>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Foundation Course - Foreign Language		3
DANC 255	Choreography	3
Dance Technique Course		2
Dance Technique Course		2
Performance Option		1
<b>Semester Credit Hours</b>		<b>15</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
Essential Learning - Humanities		3
Essential Learning - Natural Science with Lab		4
DANC 328	Music Analysis for Dance	3
Dance Technique Course		2
General Elective		2
Performance Option		1
<b>Semester Credit Hours</b>		<b>15</b>
<b>Fourth Year</b>		
<b>Fall Semester</b>		
Essential Learning - Social and Behavioral Sciences		3
DANC 315	History and Philosophy of Dance I	3
THEA 401	Career Preparation	3
Dance Technique Course		2
General Elective		3
Performance Option		1
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Total Semester Credit Hours</b>		<b>120</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Dance (Minor)

Minor: Dance

Program Code: M220

### About This Minor. . .

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, the newest concentration in the Theatre department, 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, the 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 CMU 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.

## Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

**To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print**

**Options.** This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option 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
<b>Required Courses</b>		
DANC 225	The Healthy Dancer	3
DANC 250	Dance Improvisation	2
DANC 315	History and Philosophy of Dance I	3
Select 8 semester hours of Technique Courses from the following:		8
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 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 183	Modern I	
DANC 230	Modern IIA	
DANC 231	Modern IIB	
DANC 330	Modern IIIA	
DANC 331	Modern IIIB	
DANC 430	Modern IVA	
DANC 431	Modern IVB	
Select 2 semester hours of Performance Courses from the following:		2
DANC 156	Dance Performance	
	or DANC 256Dance Performance	
	or DANC 356Dance Performance	
	or DANC 456Dance Performance	
DANC 290	Choreography Practicum I	
DANC 390	Choreography Practicum II	
DANC 490	Choreography Practicum III	
Select 2 semester hours of DANC Electives. DANC courses may be repeated once for credit.		2
<b>Total Semester Credit Hours</b>		<b>20</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 her/his responsibility to consult the Registrar's Office regarding next steps.

## Decision Support

(See [Computer Information Systems](#) (p. 234))

# 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

Office of Student Services  
WCCC, Bishop B102  
2508 Blichmann Avenue  
970.255.2670

## Programs of Study Associates <sup>1</sup>

- [Digital Filmmaking, Production Design \(AAS\)](#) (p. 295)
- [Digital Filmmaking, Writing/Directing \(AAS\)](#) (p. 298)

## Certificates <sup>1,2</sup>

- [Digital Filmmaking, Basic Production Design \(Technical Certificate\)](#) (p. 290)
- [Digital Filmmaking, Basic Writing/Directing \(Technical Certificate\)](#) (p. 291)
- [Digital Filmmaking, Intermediate Production Design \(Technical Certificate\)](#) (p. 292)
- [Digital Filmmaking, Intermediate Writing/Directing \(Technical Certificate\)](#) (p. 294)
- [Digital Filmmaking, Production Design Elements \(Technical Certificate\)](#) (p. 297)
- [Digital Filmmaking, Writing/Directing Elements \(Technical Certificate\)](#) (p. 300)

<sup>1</sup> The Production Design AAS and all three Production Design Technical Certificates are no longer accepting new students.

<sup>2</sup> Certificates progress in the following order: Elements, Basic, Intermediate.

## Digital Filmmaking, Basic Production Design (Technical Certificate)

Award: Technical Certificate  
Program of Study: Digital Filmmaking  
Specialization: Basic Production Design  
Program Code: 1125

## About This Program . . .

### 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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Total Semester Credit Hours</b>		<b>12</b>

## Suggested Course Plan

First Year		Semester Credit Hours
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
<b>Semester Credit Hours</b>		<b>12</b>
<b>Total Semester Credit Hours</b>		<b>12</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student’s petition for graduation is denied, it will be her/his responsibility to consult the Registrar’s Office regarding next steps.

## Digital Filmmaking, Basic Writing/Directing (Technical Certificate)

Award: Technical Certificate  
 Program of Study: Digital Filmmaking  
 Specialization: Basic Writing/Directing  
 Program Code: 1147

## About This Program . . .

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 WCCC’s [Programs of Study](#) page.

All CMU/WCCC 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. 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Total Semester Credit Hours</b>		<b>12</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Spring Semester		
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
<b>Semester Credit Hours</b>		<b>12</b>
<b>Total Semester Credit Hours</b>		<b>12</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Digital Filmmaking, Intermediate Production Design (Technical Certificate)

Award: Technical Certificate  
Program of Study: Digital Filmmaking  
Specialization: Intermediate Production Design

Program Code: 1126

## About This Program . . .

### 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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Total Semester Credit Hours</b>		<b>9</b>

## Suggested Course Plan

Second Year		Semester Credit Hours
Fall Semester		
FILM 220	Cinema Audio Design	3
FILM 240	Digital Cinematic Effects	3
FILM 250	Episodic Video Editing	3
<b>Semester Credit Hours</b>		<b>9</b>
<b>Total Semester Credit Hours</b>		<b>9</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his intended certificate.

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department head. Discrepancies in requirements should be reported 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Digital Filmmaking, Intermediate Writing/Directing (Technical Certificate)

Award: Technical Certificate

Program of Study: Digital Filmmaking

Specialization: Intermediate Writing/Directing

Program Code: 1148

### About This Program . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Total Semester Credit Hours</b>		<b>6</b>

## Suggested Course Plan

Second Year

Fall Semester

		Semester Credit Hours
FILM 230	Episodic Production	3
FILM 265	Producing Indie Films	3
<b>Semester Credit Hours</b>		<b>6</b>
<b>Total Semester Credit Hours</b>		<b>6</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Digital Filmmaking, Production Design (AAS)

Degree: Associate of Applied Science

Major: Digital Filmmaking

Emphasis: Production Design

Program Code: 1303

## About This Major...

### 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 composers. 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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Communication</b>		
ENGL 111	English Composition I-GTCO1	3
Select one of the following courses:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communications	
SPCH 102	Speechmaking	
<b>Mathematics</b>		
MATH 110	Mathematical Investigations-GTMA1 (or higher)	3
<b>Other Essential Learning Core Courses</b>		
ENGL 222	Mythology-GTAH2	3
THEA 141	Theatre Appreciation-GTAH1	3
<b>Total Semester Credit Hours</b>		<b>15</b>

## Other Lower Division Requirements

(2 semester hours)

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Total Semester Credit Hours</b>		<b>2</b>

## 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
<b>Total Semester Credit Hours</b>		<b>42</b>

## Suggested Course Plan

First Year		Semester Credit Hours
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
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 Communications	

SPCH 102	Speechmaking	
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Total Semester Credit Hours</b>		<b>60</b>

Specialization: Production Design Elements  
Program Code: 1124

## About This Program . . .

### 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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Digital Filmmaking, Production Design Elements (Technical Certificate)

Award: Technical Certificate  
Program of Study: Digital Filmmaking

- 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
<b>Total Semester Credit Hours</b>		<b>12</b>

## 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
<b>Semester Credit Hours</b>		<b>12</b>
<b>Total Semester Credit Hours</b>		<b>12</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Digital Filmmaking, Writing/Directing (AAS)

Degree: Associate of Applied Science  
Major: Digital Filmmaking  
Emphasis: Writing/Directing  
Program Code: 1304

## About This Major...

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Communication</b>		
ENGL 111	English Composition I-GTCO1	3
Select one of the following courses:		
ENGL 112	English Composition II-GTCO2	3
SPCH 101	Interpersonal Communications	
SPCH 102	Speechmaking	
<b>Mathematics</b>		
MATH 110	Mathematical Investigations-GTMA1 (or higher)	3
<b>Other Essential Learning Core Courses</b>		
THEA 141	Theatre Appreciation-GTAH1	3
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts, or Humanities course		
<b>Total Semester Credit Hours</b>		<b>15</b>

## Other Lower Division Requirements

(2 semester hours)

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		
<b>Total Semester Credit Hours</b>		<b>2</b>

## 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
<b>Total Semester Credit Hours</b>		<b>44</b>

## 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
<b>Semester Credit Hours</b>		<b>16</b>

#### 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
<b>Semester Credit Hours</b>		<b>16</b>

### 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
<b>Semester Credit Hours</b>		<b>14</b>

#### 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 Communications	
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
<b>Semester Credit Hours</b>		<b>15</b>

**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 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Digital Filmmaking, Writing/Directing Elements (Technical Certificate)

Award: Technical Certificate

Program of Study: Digital Filmmaking

Specialization: Writing/Directing Elements

Program Code: 1146

## About This Program . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Total Semester Credit Hours</b>		<b>12</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
FILM 110	Film Expression	3
FILM 120	Film Script Analysis	3
FILM 130	Short-Form Screenwriting	3
FILM 139	Professional Documentary Production	3
<b>Semester Credit Hours</b>		<b>12</b>
<b>Total Semester Credit Hours</b>		<b>12</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Economics

(See [Business](#) (p. 175))

# 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.

### 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

Office of Student Services  
WCCC, Bishop B102

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. 314)
- [Education: Early Childhood Education, Liberal Arts \(AA\)](#) (p. 305)

## Bachelors/Minors

- [Education: Early Childhood Special Education, Early Childhood Education \(BA\)](#) (p. 302)

## Certificates

- [Education: Early Childhood Education Assistant Teacher \(Technical Certificate\)](#) (p. 309)
- [Education: Early Childhood Education Director \(Technical Certificate\)](#) (p. 308)
- [Education: Early Childhood Education Entry-Level Teacher \(Technical Certificate\)](#) (p. 311)
- [Education: Early Childhood Education Teacher \(Technical Certificate\)](#) (p. 313)

## 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

## About This Major . . .

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:

- 123 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTC01	3
ENGL 112	English Composition II-GTC02	3
<b>Mathematics</b> <sup>1,2</sup>		
MATH 205	Elements of Mathematics II-GTMA1	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3



Social and Behavioral Sciences		
PSYC 150	General Psychology-GTSS3 <sup>3</sup>	3
Select one Social and Behavioral Sciences course		3
Fine Arts		
Select one Fine Arts course		3
Natural Sciences <sup>4</sup>		
Select one Natural Sciences course with a lab		4
Select one Natural Sciences course		3
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "B" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> Must be taken after MATH 105

<sup>3</sup> Must earn a "B" or higher.

<sup>4</sup> 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 <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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
<b>Total Semester Credit Hours</b>		<b>30</b>

## 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 <sup>1</sup>		
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)	6
Praxis II Exam Passed		
ECSE 499	Teaching Internship and Colloquia: Early Childhood Ages 3 - 5/Pre-K (300 field experience hours)	6
<b>Total Semester Credit Hours</b>		<b>55</b>

<sup>1</sup> 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		Semester Credit Hours
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
<b>Semester Credit Hours</b>		<b>16</b>
Fall Semester		
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
<b>Semester Credit Hours</b>		<b>16</b>
Second Year		
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
<b>Semester Credit Hours</b>		<b>18</b>
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
<b>Semester Credit Hours</b>		<b>17</b>
Third Year		
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
<b>Semester Credit Hours</b>		<b>15</b>
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
<b>Semester Credit Hours</b>		<b>15</b>
Fourth Year		
Spring Semester		
EDUC 499A	Teaching Internship and Colloquia: K-2	6

ECSE 499	Teaching Internship and Colloquia: Early Childhood Ages 3 - 5/Pre-K	6
<b>Semester Credit Hours</b>		<b>12</b>
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
<b>Semester Credit Hours</b>		<b>13</b>
<b>Total Semester Credit Hours</b>		<b>122</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his 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

## About This Major . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>English <sup>1</sup></b>		
ENGL 111	English Composition I-GTC01	3

ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>2</sup>		
MATH 110	Mathematical Investigations-GTMA1 (or higher)	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>3</sup>		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "B" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

<sup>3</sup> One course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Total Semester Credit Hours</b>		<b>2</b>

## 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
<b>Core Courses</b>		
EDEC 238	Early Childhood Development 0-8 Years <sup>1</sup>	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
<b>Total Semester Credit Hours</b>		<b>19</b>

<sup>1</sup> 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
<b>Restricted Electives</b>		
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	
<b>Total Semester Credit Hours</b>		<b>8</b>

## 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
<b>Semester Credit Hours</b>		<b>16</b>
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	Early Childhood Development 0-8 Years	3
or PSYC 233	or Human Growth and Development-GTSS3	
<b>Semester Credit Hours</b>		<b>14</b>
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
<b>Semester Credit Hours</b>	<b>16</b>
<b>Spring Semester</b>	
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
<b>Semester Credit Hours</b>	<b>14</b>
<b>Total Semester Credit Hours</b>	<b>60</b>

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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Education: Early Childhood Education Director (Technical Certificate)

Award: Technical Certificate  
Program of Study: Early Childhood Education Director

Program Code: 1192

## About This Program . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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 effective written communication skills (Communication Fluency)
2. Demonstrate effective oral communication skills (Communication Fluency)
3. Utilize mathematical concepts required to create a child care business budget (Quantitative Fluency)
4. Analyze data collected from different evaluation tools to create logical next-step solutions for improving quality in a child care business. (Critical Thinking)
5. Create documents that are substantially error-free for families, staff and government agencies using current early childhood professional terminology. (Applied Learning)
6. 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Required Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>30</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
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
<b>Semester Credit Hours</b>		<b>15</b>
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Total Semester Credit Hours</b>		<b>30</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Education: Early Childhood Education Assistant Teacher (Technical Certificate)

Award: Technical Certificate

Program of Study: Early Childhood Education Assistant Teacher  
Program Code: 1195

## About This Program . . .

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 Career Services' [What to Do with a Major?](#) resource.

For more information on what you can do with this major, visit [WCCC's Programs of Study](#) page.

All CMU/WCCC 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 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<i>Required Courses:</i>		
EDEC 101	Introduction to Early Childhood	3
<i>Select one of the following:</i>		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	
<i>Select three credit hours from the following:</i>		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
<i>Select one of the following:</i>		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	
<b>Semester Credit Hours</b>		<b>6</b>
<b>Spring Semester</b>		
Select three credit hours from the following:		<b>3</b>
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	
<b>Semester Credit Hours</b>		<b>3</b>
<b>Total Semester Credit Hours</b>		<b>9</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Education: Early Childhood Education Entry-Level Teacher (Technical Certificate)

Award: Technical Certificate  
Program of Study: Early Childhood Education Entry-Level Teacher  
Program Code: 1194

### About This Program . . .

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 and then continue on to earn an Associate of Arts 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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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 effective written communication skills. (Communication Fluency)
2. Demonstrate effective written verbal skills (Communication Fluency)
3. Utilize mathematical skills required to assist the classroom teacher with instruction of young children (Quantitative Fluency)
4. Evaluate current professional resources relating to several different domains of early childhood education. (Critical Thinking)
5. Explain the impact of the Colorado Department of Child Care Rules and Regulations on children and families. (Specialized Knowledge)
6. 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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 maintain a 2.00 cumulative GPA or higher in all coursework.)

Code	Title	Semester Credit Hours
<b>Required Courses</b>		
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 238	Early Childhood Development 0-8 Years	
EDEC 240	Curriculum and Development: Early Childhood	
EDEC 250	Exceptionalities in Early Education	
Select one of the following:		3
EDEC 102	Introduction to Early Childhood Professions Lab Experiences	
EDEC 114	Introduction to Infant/Toddler Lab Techniques	
EDEC 241	Early Childhood Administration: Human Relations	
EDEC 256	Working with Parents, Families, and Community Systems	
EDEC 299	Student Teaching in Early Education	
<b>Total Semester Credit Hours</b>		<b>9</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
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 238	Early Childhood Development 0-8 Years	
EDEC 240	Curriculum and Development: Early Childhood	
EDEC 250	Exceptionalities in Early Education	
<b>Semester Credit Hours</b>		<b>6</b>
Spring Semester		
Select one of the following:		3
EDEC 102	Introduction to Early Childhood Professions Lab Experiences	
EDEC 114	Introduction to Infant/Toddler Lab Techniques	
EDEC 241	Early Childhood Administration: Human Relations	
EDEC 256	Working with Parents, Families, and Community Systems	
EDEC 299	Student Teaching in Early Education	
<b>Semester Credit Hours</b>		<b>3</b>
<b>Total Semester Credit Hours</b>		<b>9</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Education: Early Childhood Education Teacher (Technical Certificate)

Award: Technical Certificate

Program of Study: Early Childhood Education Teacher

Program Code: 1193

### About This Program . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Required Courses</b>		
EDEC 101 or EDEC 113	Introduction to Early Childhood Infant and Toddler Theory and Practice	3
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
<i>Select three credits from the following:</i>		
EDEC 102	Introduction to Early Childhood Professions Lab Experiences	3
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	
<b>Total Semester Credit Hours</b>		<b>16</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
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
<b>Semester Credit Hours</b>		<b>7</b>
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	
<b>Semester Credit Hours</b>		<b>9</b>
<b>Total Semester Credit Hours</b>		<b>16</b>

- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and 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 her/his responsibility to consult the Registrar's Office regarding next steps.

## Education: Early Childhood Education (AAS)

Degree: Associate of Applied Science  
Major: Early Childhood Education  
Emphasis: Early Childhood Education  
Program Code: 1394

### About This Major . . .

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 [WCCC'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 WCCC Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>English</b>		
ENGL 111	English Composition I-GTC01	3
ENGL 112	English Composition II-GTC02	3
SPCH 102	Speechmaking	3
<b>Mathematics</b>		
MATH 107	Career Math (or higher) <sup>1</sup>	3
<b>Other Essential Learning Core Courses</b>		
PSYC 150	General Psychology-GTSS3	3
or PSYC 233	Human Growth and Development-GTSS3	
Essential Learning Natural Science with/without lab		3-4
<b>Total Semester Credit Hours</b>		<b>18-19</b>

<sup>1</sup> Math 110 or higher is suggested if the student plans on pursuing a four-year degree.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirements</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Total Semester Credit Hours</b>		<b>2</b>

## 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
<b>Restricted Electives</b>		
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	
<b>Total Semester Credit Hours</b>		<b>40</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
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
<b>Semester Credit Hours</b>		<b>15-16</b>
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
<b>Semester Credit Hours</b>		<b>15</b>
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
<b>Semester Credit Hours</b>		<b>15</b>
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Total Semester Credit Hours</b>		<b>60-61</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## 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. 79) 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. 335)
- [Education: Applied Mathematics \(MAEd\)](#) (p. 317)

- [Education: Educational Leadership \(EDLD\) \(Graduate Certificate\)](#) (p. 336)
- [Education: Educational Leadership \(EDLD\) \(MAEd\)](#) (p. 319)
- [Education: Exceptional Learner/Special Education \(EDSE\) \(Graduate Certificate\)](#) (p. 338)
- [Education: Exceptional Learner/Special Education \(EDSE\) \(MAEd\)](#) (p. 320)
- [Education: Initial Teacher Licensure - Elementary \(Graduate Certificate\)](#) (p. 340)
- [Education: Initial Teacher Licensure - Elementary \(MAEd\)](#) (p. 322)
- [Education: Initial Teacher Licensure - Secondary \(Graduate Certificate\)](#) (p. 341)
- [Education: Initial Teacher Licensure - Secondary \(MAEd\)](#) (p. 324)
- [Education: Initial Teacher Licensure K-12 Physical Education \(Graduate Certificate\)](#) (p. 328)
- [Education: Initial Teacher Licensure K-12 Physical Education \(MAEd\)](#) (p. 326)
- [Education: Rhetoric and Literary Studies \(MAEd\)](#) (p. 331)
- [Education: Social Science \(MAEd\)](#) (p. 333)
- [Education: Teaching and Leadership \(EDTL\) \(MAEd\)](#) (p. 329)
- [Rhetoric and Literary Studies \(Graduate Certificate\)](#) (p. 343)
- [Social Science \(Graduate Certificate\)](#) (p. 344)

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

### About This Major . . .

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. 81)” 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
<b>Required Courses</b>		
MATH 500	Introduction to Graduate Studies in Applied Mathematics	3
MATH 510	Applied Probability and Statistics	3
MATH 520	Applied Numerical Methods	3
<b>Restricted Elective Courses</b>		
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	
<b>Master of Arts in Education Core Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>33</b>

## Suggested Course Plan

First Year		Semester Credit Hours
<b>Summer Semester</b>		
EDUC 502	Theory, Design & Assessment of Curriculum	3
MATH 500	Introduction to Graduate Studies in Applied Mathematics	3
<b>Semester Credit Hours</b>		<b>6</b>
<b>Fall Semester</b>		
EDUC 501	Educational Technology	2
MATH 510	Applied Probability and Statistics	3
<b>Semester Credit Hours</b>		<b>5</b>
<b>Spring Semester</b>		
EDTL 513	Information Based Educational Practice and Statistics	3
MATH 520	Applied Numerical Methods	3
<b>Semester Credit Hours</b>		<b>6</b>
<b>Second Year</b>		
<b>Summer Semester</b>		
EDUC 500	Culture and Pedagogy	3
EDUC 503	Introduction to Educational Research and Design	3
Restricted Elective		3
<b>Semester Credit Hours</b>		<b>9</b>
<b>Fall Semester</b>		
EDUC 600	Master’s in Education Capstone	1
Restricted Elective		3
<b>Semester Credit Hours</b>		<b>4</b>
<b>Spring Semester</b>		
Restricted Elective		3
<b>Semester Credit Hours</b>		<b>3</b>
<b>Total Semester Credit Hours</b>		<b>33</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If your petition for graduation is denied, it will be your responsibility to apply for graduation in a subsequent semester. Your “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

### About This Major . . .

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. 81)” 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
<b>Core Courses</b>		
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
<b>Educational Leadership Courses</b>		
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 <sup>1</sup>		
<b>Total Semester Credit Hours</b>		<b>36</b>

<sup>1</sup> 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		Semester Credit Hours
Summer Semester		
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
<b>Semester Credit Hours</b>		<b>11</b>
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
<b>Semester Credit Hours</b>		<b>9</b>

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
<b>Semester Credit Hours</b>		<b>8</b>

Second Year		
Summer Semester		
EDUC 500	Culture and Pedagogy	3
EDLD 520B	Principalship II	2
EDLD 506	Leadership and Organizational Change	3
Comprehensive Exam		
<b>Semester Credit Hours</b>		<b>8</b>
<b>Total Semester Credit Hours</b>		<b>36</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If your petition for graduation is denied, it will be your responsibility to apply for graduation in a subsequent semester. Your "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

## About This Major . . .

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. 81)" 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
<b>Core Courses</b>		
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
<b>Exceptional Learner Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>36</b>

## 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
<b>Semester Credit Hours</b>		<b>9</b>
<b>Fall Semester</b>		
EDUC 501	Educational Technology	2
EDSE 501	Instructional Strategies in Special Education	3
EDSE 515	Internship K-6 Elementary Practicum in Special Education	3
<b>Semester Credit Hours</b>		<b>8</b>
<b>Spring Semester</b>		
EDSE 502	Behavioral Interventions for the Learner with Special Needs	3
EDSE 520	Internship 6-12 Secondary Practicum in Special Education	3
<b>Semester Credit Hours</b>		<b>6</b>

### Second Year

Summer Semester	Semester Credit Hours	
EDUC 500	Culture and Pedagogy	3
EDSE 510	The Learner Who is Twice Exceptional, Including Gifted and Talented	3
<b>Semester Credit Hours</b>		<b>6</b>
<b>Fall Semester</b>		
EDSE 503	Methods of Teaching Students with Mild Disabilities Reading and Math	3
<b>Semester Credit Hours</b>		<b>3</b>
<b>Spring Semester</b>		
EDSE 506	Educating Students with Low Incidence Disabilities in Inclusive Environments	3

EDUC 600	Master's in Education Capstone	1
<b>Semester Credit Hours</b>		<b>4</b>
<b>Total Semester Credit Hours</b>		<b>36</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If your petition for graduation is denied, it will be your responsibility to apply for graduation in a subsequent semester. Your "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

## About This Major . . .

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. 81)" 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
<b>Core Courses</b>		
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
<b>ITL – Elementary Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>42</b>

## 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
<b>Semester Credit Hours</b>		<b>12</b>

### 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
<b>Semester Credit Hours</b>		<b>9</b>

### Spring Semester

EDUC 599A	ITL 3: Directed Teaching: Elementary Education	9
<b>Semester Credit Hours</b>		<b>9</b>

### 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
<b>Semester Credit Hours</b>		<b>9</b>

#### Fall Semester

EDUC 501	Educational Technology	2
EDUC 600	Master's in Education Capstone	1
<b>Semester Credit Hours</b>		<b>3</b>
<b>Total Semester Credit Hours</b>		<b>42</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If your petition for graduation is denied, it will be your responsibility to apply for graduation in a subsequent semester. Your "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

## About This Major . . .

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)

- Evaluate and formulate secondary education plans based on research, current issues, and public education stakeholders. (Critical Thinking and Specialized Knowledge)
- Synthesize, evaluate, and refine information from an information base of scholarly resources. (Information Literacy)
- Evaluate and articulate responses to moral, ethical, legal, and professional challenges from the perspective of a secondary educator. (Ethical Reasoning)
- 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)
- 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 \(p. 81\)](#)" 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
<b>Core Courses</b>		
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
<b>Secondary Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>42</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Summer Semester		
EDUC 521	Educational Foundations, Student Development, and Ethics	3
EDUC 562	Curriculum, Instruction, and Assessment	6
EDUC 586	Accommodating Diverse and Exceptional Needs	3
<b>Semester Credit Hours</b>		<b>12</b>
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
<b>Semester Credit Hours</b>		<b>9</b>
<b>Spring Semester</b>		
EDUC 599B	ITL 3: Directed Teaching: Secondary Education	9
<b>Semester Credit Hours</b>		<b>9</b>
<b>Second Year</b>		
<b>Summer Semester</b>		
EDUC 500	Culture and Pedagogy	3
EDUC 502	Theory, Design & Assessment of Curriculum	3
EDUC 503	Introduction to Educational Research and Design	3
<b>Semester Credit Hours</b>		<b>9</b>
<b>Fall Semester</b>		
EDUC 501	Educational Technology	2
EDUC 600	Master's in Education Capstone	1
<b>Semester Credit Hours</b>		<b>3</b>
<b>Total Semester Credit Hours</b>		<b>42</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If your petition for graduation is denied, it will be your responsibility to apply for graduation in a subsequent semester. Your "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

### About This Program . . .

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. 81)" 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)

- 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
<b>Core Courses</b>		
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
<b>ITL - K-12 Physical Education Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>33</b>

## Suggested Course Plan

First Year		Semester Credit Hours
<b>Summer Semester</b>		
EDUC 521	Educational Foundations, Student Development, and Ethics	3
EDUC 562	Curriculum, Instruction, and Assessment	6
EDUC 586	Accommodating Diverse and Exceptional Needs	3
<b>Semester Credit Hours</b>		<b>12</b>
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>9</b>
<b>Spring Semester</b>		
EDUC 599C	ITL 3: Directed Teaching, Physical Education	9
<b>Semester Credit Hours</b>		<b>9</b>
<b>Second Year</b>		
<b>Summer Semester</b>		
EDUC 500	Culture and Pedagogy	3
EDUC 502	Theory, Design & Assessment of Curriculum	3
EDUC 503	Introduction to Educational Research and Design	3
<b>Semester Credit Hours</b>		<b>9</b>
<b>Fall Semester</b>		
EDUC 501	Educational Technology	2
EDUC 600	Master's in Education Capstone	1
<b>Semester Credit Hours</b>		<b>3</b>
<b>Total Semester Credit Hours</b>		<b>42</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If your petition for graduation is denied, it will be your responsibility to apply for graduation in a subsequent semester. Your "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

### About This Program . . .

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.

All CMU program completers are expected to demonstrate proficiency in critical thinking, communication fluency, quantitative fluency, and specialized knowledge/applied learning. 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. 81)" 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
<b>Total Semester Credit Hours</b>		<b>30</b>

## 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		Semester Credit Hours
Summer Semester		
EDUC 521	Educational Foundations, Student Development, and Ethics	3
EDUC 562	Curriculum, Instruction, and Assessment	6
EDUC 586	Accommodating Diverse and Exceptional Needs	3
<b>Semester Credit Hours</b>		<b>12</b>
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
<b>Semester Credit Hours</b>		<b>9</b>
Spring Semester		
EDUC 599C	ITL 3: Directed Teaching, Physical Education	9
<b>Semester Credit Hours</b>		<b>9</b>
<b>Total Semester Credit Hours</b>		<b>30</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If your petition for graduation is denied, it will be your responsibility to apply for graduation in a subsequent semester. Your "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

## About This Major . . .

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. 81)" 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
<b>Core Courses</b>		
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
<b>Teaching and Leadership Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>30</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Summer Semester		
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
<b>Semester Credit Hours</b>		<b>9</b>
Fall Semester		
EDLD 542	Instructional Supervision and Management/HR	3
EDLD 540	School Improvement and Accountability	3
EDUC 501	Educational Technology	2
<b>Semester Credit Hours</b>		<b>8</b>
Spring Semester		
EDTL 513	Information Based Educational Practice and Statistics	3
EDUC 600	Master's in Education Capstone	1
<b>Semester Credit Hours</b>		<b>4</b>
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
	<b>Semester Credit Hours</b>	<b>9</b>
	<b>Total Semester Credit Hours</b>	<b>30</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If your petition for graduation is denied, it will be your responsibility to apply for graduation in a subsequent semester. Your "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

### About This Major . . .

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. 81)" 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
<b>Required Courses</b>		
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
<b>Master of Arts in Education Core Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>33</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Summer Semester		
EDUC 502	Theory, Design & Assessment of Curriculum	3
ENGL 586	Seminar in Rhetoric and Composition	3
<b>Semester Credit Hours</b>		<b>6</b>
Fall Semester		
EDUC 501	Educational Technology	2
ENGL 521	Seminar in Literary Theory	3
<b>Semester Credit Hours</b>		<b>5</b>
Spring Semester		
EDTL 513	Information Based Educational Practice and Statistics	3
ENGL 554	Topics in British and Commonwealth Literature	3
<b>Semester Credit Hours</b>		<b>6</b>
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
<b>Semester Credit Hours</b>		<b>9</b>
Fall Semester		
ENGL 543	Language Systems and Linguistic Diversity	3
EDUC 600	Master's in Education Capstone	1
<b>Semester Credit Hours</b>		<b>4</b>
Spring Semester		
ENGL 561	Topics in American Literature	3
<b>Semester Credit Hours</b>		<b>3</b>
<b>Total Semester Credit Hours</b>		<b>33</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If your petition for graduation is denied, it will be your responsibility to apply for graduation in a subsequent semester. Your "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

### About This Major . . .

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. 81)" 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
<b>Required Courses</b>		
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
<b>Master of Arts in Education Core Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>33</b>

## Suggested Course Plan

First Year		Semester Credit Hours
<b>Summer Semester</b>		
EDUC 502	Theory, Design & Assessment of Curriculum	3
HIST 501	Early American History: Foundation - Civil War	3
<b>Semester Credit Hours</b>		<b>6</b>
<b>Fall Semester</b>		
EDUC 501	Educational Technology	2
HIST 502	Late American History: Civil War - Modern U.S.	3
<b>Semester Credit Hours</b>		<b>5</b>
<b>Spring Semester</b>		
EDTL 513	Information Based Educational Practice and Statistics	3
HIST 510	Early European History: Ancient - Reformation	3
<b>Semester Credit Hours</b>		<b>6</b>
<b>Second Year</b>		
<b>Summer Semester</b>		
EDUC 500	Culture and Pedagogy	3
EDUC 503	Introduction to Educational Research and Design	3
HIST 511	Modern European History: Reformation - 20th Century	3
<b>Semester Credit Hours</b>		<b>9</b>
<b>Fall Semester</b>		
EDUC 600	Master's in Education Capstone	1
POLS 501	Theories of Political Science	3
<b>Semester Credit Hours</b>		<b>4</b>
<b>Spring Semester</b>		
POLS 505	American Government	3
<b>Semester Credit Hours</b>		<b>3</b>
<b>Total Semester Credit Hours</b>		<b>33</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If your petition for graduation is denied, it will be your responsibility to apply for graduation in a subsequent semester. Your “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

### About This Major . . .

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.

All CMU program completers are expected to demonstrate proficiency in critical thinking, communication fluency, quantitative fluency, and

specialized knowledge/applied learning. 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. 81)” 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
<b>Required Courses</b>		
MATH 500	Introduction to Graduate Studies in Applied Mathematics	3
MATH 510	Applied Probability and Statistics	3
MATH 520	Applied Numerical Methods	3
<b>Restricted Elective Courses</b>		
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	
<b>Total Semester Credit Hours</b>		<b>18</b>

## Suggested Course Plan

First Year	Semester Credit Hours
<b>Summer Semester</b>	
MATH 500	Introduction to Graduate Studies in Applied Mathematics
<b>Semester Credit Hours</b>	
	3
<b>Fall Semester</b>	
MATH 510	Applied Probability and Statistics
<b>Semester Credit Hours</b>	
	3
<b>Spring Semester</b>	
MATH 520	Applied Numerical Methods
<b>Semester Credit Hours</b>	
	3
<b>Second Year</b>	
<b>Summer Semester</b>	
Restricted Elective	
<b>Semester Credit Hours</b>	
	3
<b>Fall Semester</b>	
Restricted Elective	
<b>Semester Credit Hours</b>	
	3
<b>Spring Semester</b>	
Restricted Elective	
<b>Semester Credit Hours</b>	
	3
<b>Total Semester Credit Hours</b>	
	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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If your petition for graduation is denied, it will be your responsibility to apply for graduation in a subsequent semester. Your "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

## About This Major . . .

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.

All CMU program completers are expected to demonstrate proficiency in critical thinking, communication fluency, quantitative fluency, and specialized knowledge/applied learning. 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.

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## Institutional Graduate Degree Requirements

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- 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. 81)" 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 <sup>1</sup>		

**Total Semester Credit Hours** **24**

<sup>1</sup> 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		Semester Credit Hours
Summer Semester		Semester Credit Hours
EDLD 515	Dynamic School Leadership in a Democratic Society: Introduction to School Administration	3
EDLD 520A	Principalship I	2
<b>Semester Credit Hours</b>		<b>5</b>

<b>Fall Semester</b>		
EDLD 535	Internship in Educational Leadership I	1
EDLD 540	School Improvement and Accountability	3
EDLD 542	Instructional Supervision and Management/HR	3
<b>Semester Credit Hours</b>		<b>7</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>7</b>
<b>Second Year</b>		
<b>Summer Semester</b>		
EDLD 520B	Principalship II	2
EDLD 506	Leadership and Organizational Change	3
<b>Semester Credit Hours</b>		<b>5</b>
<b>Total Semester Credit Hours</b>		<b>24</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If your petition for graduation is denied, it will be your responsibility to apply for graduation in a subsequent semester. Your "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

### About This Major . . .

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.

All CMU program completers are expected to demonstrate proficiency in critical thinking, communication fluency, quantitative fluency, and specialized knowledge/applied learning. 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. 81)" 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		Semester Credit Hours
<b>Summer Semester</b>		
EDSE 500	Foundation of Special Education Including Law	3
<b>Semester Credit Hours</b>		<b>3</b>
<b>Fall Semester</b>		
EDSE 501	Instructional Strategies in Special Education	3
EDSE 515	Internship K-6 Elementary Practicum in Special Education	3
<b>Semester Credit Hours</b>		<b>6</b>
<b>Spring Semester</b>		
EDSE 502	Behavioral Interventions for the Learner with Special Needs	3
EDSE 520	Internship 6-12 Secondary Practicum in Special Education	3
<b>Semester Credit Hours</b>		<b>6</b>
<b>Second Year</b>		
<b>Summer Semester</b>		
EDSE 510	The Learner Who is Twice Exceptional, Including Gifted and Talented	3
<b>Semester Credit Hours</b>		<b>3</b>
<b>Fall Semester</b>		
EDSE 503	Methods of Teaching Students with Mild Disabilities Reading and Math	3
<b>Semester Credit Hours</b>		<b>3</b>
<b>Spring Semester</b>		
EDSE 506	Educating Students with Low Incidence Disabilities in Inclusive Environments	3
<b>Semester Credit Hours</b>		<b>3</b>
<b>Total Semester Credit Hours</b>		<b>24</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If your petition for graduation is denied, it will be your responsibility to apply for graduation in a subsequent semester. Your "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

### About This Major . . .

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.

All CMU program completers are expected to demonstrate proficiency in critical thinking, communication fluency, quantitative fluency, and specialized knowledge/applied learning. 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. 81)" 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
<b>Total Semester Credit Hours</b>		<b>30</b>

## 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
<b>Semester Credit Hours</b>		<b>12</b>

### 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
<b>Semester Credit Hours</b>		<b>9</b>

### Spring Semester

EDUC 599A	ITL 3: Directed Teaching: Elementary Education	9
<b>Semester Credit Hours</b>		<b>9</b>
<b>Total Semester Credit Hours</b>		<b>30</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If your petition for graduation is denied, it will be your responsibility to apply for graduation in a subsequent semester. Your "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

## About This Major . . .

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.

All CMU program completers are expected to demonstrate proficiency in critical thinking, communication fluency, quantitative fluency, and specialized knowledge/applied learning. 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.

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## 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. 81)" 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
<b>Total Semester Credit Hours</b>		<b>30</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Summer Semester		
EDUC 521	Educational Foundations, Student Development, and Ethics	3
EDUC 562	Curriculum, Instruction, and Assessment	6
EDUC 586	Accommodating Diverse and Exceptional Needs	3
<b>Semester Credit Hours</b>		<b>12</b>
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	
<b>Semester Credit Hours</b>		<b>9</b>
Spring Semester		
EDUC 599B	ITL 3: Directed Teaching: Secondary Education	9
<b>Semester Credit Hours</b>		<b>9</b>
<b>Total Semester Credit Hours</b>		<b>30</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If your petition for graduation is denied, it will be your responsibility to apply for graduation in a subsequent semester. Your "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

### About This Major . . .

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 policies, please refer to the Graduate Policies and Procedures Manual.

All CMU program completers are expected to demonstrate proficiency in critical thinking, communication fluency, quantitative fluency, and specialized knowledge/applied learning. 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. 81)” 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
<b>Total Semester Credit Hours</b>		<b>18</b>

## Suggested Course Plan

		Semester Credit Hours
<b>First Year</b>		
<b>Summer Semester</b>		
ENGL 586	Seminar in Rhetoric and Composition	3
<b>Semester Credit Hours</b>		<b>3</b>
<b>Fall Semester</b>		
ENGL 521	Seminar in Literary Theory	3
<b>Semester Credit Hours</b>		<b>3</b>
<b>Spring Semester</b>		
ENGL 554	Topics in British and Commonwealth Literature	3
<b>Semester Credit Hours</b>		<b>3</b>
<b>Second Year</b>		
<b>Summer Semester</b>		
ENGL 550	Studies in Creative Writing	3
<b>Semester Credit Hours</b>		<b>3</b>
<b>Fall Semester</b>		
ENGL 561	Topics in American Literature	3
<b>Semester Credit Hours</b>		<b>3</b>
<b>Spring Semester</b>		
ENGL 543	Language Systems and Linguistic Diversity	3
<b>Semester Credit Hours</b>		<b>3</b>
<b>Total Semester Credit Hours</b>		<b>18</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If your petition for graduation is denied, it will be your responsibility to apply for graduation in a subsequent semester. Your “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

## About This Program . . .

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.

All CMU program completers are expected to demonstrate proficiency in critical thinking, communication fluency, quantitative fluency, and specialized knowledge/applied learning. 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);

- Synthesize, evaluate, or refine the information base of various scholarly sources (information literacy); and
- 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. 81)" 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 policies, 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
<b>Total Semester Credit Hours</b>		<b>18</b>

## Suggested Course Plan

First Year		Semester Credit Hours
<b>Summer Semester</b>		
HIST 501	Early American History: Foundation - Civil War	3
<b>Semester Credit Hours</b>		<b>3</b>
<b>Fall Semester</b>		
HIST 502	Late American History: Civil War - Modern U.S.	3
<b>Semester Credit Hours</b>		<b>3</b>
<b>Spring Semester</b>		
HIST 510	Early European History: Ancient - Reformation	3
<b>Semester Credit Hours</b>		<b>3</b>
<b>Second Year</b>		
<b>Summer Semester</b>		
HIST 511	Modern European History: Reformation - 20th Century	3
<b>Semester Credit Hours</b>		<b>3</b>
<b>Fall Semester</b>		
POLS 501	Theories of Political Science	3
<b>Semester Credit Hours</b>		<b>3</b>
<b>Spring Semester</b>		
POLS 505	American Government	3
<b>Semester Credit Hours</b>		<b>3</b>
<b>Total Semester Credit Hours</b>		<b>18</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If your petition for graduation is denied, it will be your responsibility to apply for graduation in a subsequent semester. Your “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 a 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, 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 engineering” majors. They may apply to the Electrical and Computer 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 “A” or “B” grades and have an overall technical GPA of 3.0 or better, or
- After completing all required lower-division coursework at CMU with a technical GPA of 3.0 or better.

Interested students can learn more about the program and admission options on the [Department of Computer Science and Engineering website](#).

### Contact Information

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. 346)

## 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

[More information for CMU/CU Boulder Partnership Degree in Electrical and Computer Engineering](#)

## 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 after completing the program 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 the WCCC about physical requirements. This program begins only in the fall semester of each year.

This is a highly competitive program. [Click here for the Lineworker program application checklist and information sheet.](#)

## Contact Information

Office of Student Services  
WCCC, Bishop B102  
2508 Blichmann Avenue  
970.255.2670

## Programs of Study Associates

- [Electric Lineworker \(AAS\)](#) (p. 347)

## Certificates

- [Electric Lineworker \(Technical Certificate\)](#) (p. 349)

## Electric Lineworker (AAS)

Degree: Associate of Applied Science  
Major: Electric Line Worker  
Program Code: 1391

## About This Major . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Communication</b>		
ENGL 111	English Composition I-GTC01	3
Select one of the following courses:		3
ENGL 112	English Composition II-GTC02	
SPCH 101	Interpersonal Communications	
SPCH 102	Speechmaking	
<b>Mathematics</b>		
MATH 107	Career Math (or higher)	3
<b>Other Essential Learning Core Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>15</b>

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Total Semester Credit Hours</b>		<b>2</b>

## 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
<b>Core Courses</b>		
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	Hot Line Procedures	1

ELCL 145L	Hot Line Procedures Laboratory	2
<b>Total Semester Credit Hours</b>		<b>33</b>

Code	Title	Semester Credit Hours
<b>Restricted Electives</b>		
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	
GEOG 100	Survey of Earth Science-GTSC2	
GEOG 103	Weather and Climate-GTSC2	
GEOG 105	Geology of Colorado-GTSC2	
GEOG 131	Introduction to Cartography	
MANG 201	Principles of Management	
TSTG 220	Workplace Skills	
<b>Total Semester Credit Hours</b>		<b>12</b>

## Suggested Course Plan

First Year		Semester Credit Hours
<b>Fall Semester</b>		
ENGL 111	English Composition I-GTC01	3
Social Sciences, Natural Sciences, Fine Arts or Humanities		3
Restricted Electives		6
<b>Semester Credit Hours</b>		<b>12</b>
<b>Spring Semester</b>		
Select one of the following:		3
SPCH 101	Interpersonal Communications	
SPCH 102	Speechmaking	
ENGL 112	English Composition II-GTC02	
KINE 100	Health and Wellness	1
KINA Activity Course		1
Social Sciences, Natural Sciences, Fine Arts or Humanities		3
Restricted Electives		6
<b>Semester Credit Hours</b>		<b>14</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
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	Hot Line Procedures	1

ELCL 145L	Hot Line 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 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Electric Lineworker (Technical Certificate)

Award: Technical Certificate  
Program of Study: Electric Lineworker  
Program Code: 1381

### About This Program . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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	Hot Line Procedures	1
ELCL 145L	Hot Line Procedures Laboratory	2
<b>Total Semester Credit Hours</b>		<b>36</b>

## 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
<b>Semester Credit Hours</b>		<b>15</b>

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	Hot Line Procedures	1
ELCL 145L	Hot Line Procedures Laboratory	2
<b>Semester Credit Hours</b>		<b>21</b>
<b>Total Semester Credit Hours</b>		<b>36</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## 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  
Lowell Heiny Hall 413  
970.248.1696

## Programs of Study Certificates

- [Emergency Management and Disaster Planning \(Professional Certificate\)](#) (p. 351)

## Emergency Management and Disaster Planning (Professional Certificate)

Award: Professional Certificate

Program of Study: Emergency Management and Disaster Planning  
Program Code: 1771

### About This Program . . .

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 critical thinking, communication fluency, quantitative fluency, and specialized knowledge/applied learning. 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 <sup>1</sup>	3
EMDP 321	Hazard Preparedness and Mitigation <sup>1</sup>	3
EMDP 331	Disaster Response and Recovery <sup>1</sup>	3

<sup>1</sup> Consult with Social and Behavioral Sciences Department advisor regarding prerequisite classes that might be necessary to take.

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
EMDP 211	Introduction to Emergency Management	3
<b>Semester Credit Hours</b>		<b>3</b>
Spring Semester		
EMDP 321	Hazard Preparedness and Mitigation	3
EMDP 331	Disaster Response and Recovery	3
<b>Semester Credit Hours</b>		<b>6</b>
<b>Total Semester Credit Hours</b>		<b>9</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If your petition for graduation is denied, it will be your responsibility to apply for graduation in a subsequent semester. Your "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 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, and cardiac emergencies. Formal courses are combined with skills practice and 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- backboard 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, doctor offices, private ambulance services, and 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 the use of procedures, medications and equipment to manage medical emergencies and traumatic injuries in patients of all ages. Paramedics 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 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 is 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.

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/WCCC in approximately six month to verify your employment information. This information gathering is a federal requirement to ensure that WCCC receives certain federal funding.

### Contact Information

Office of Student Services  
WCCC, Bishop B102  
2508 Blichmann Avenue  
970.255.2670

### Programs of Study Associates

- [EMT - Paramedic \(AAS\)](#) (p. 352)

### Certificates

- [EMT - Basic \(Technical Certificate\)](#) (p. 355)
- [EMT - Paramedic \(Technical Certificate\)](#) (p. 356)

### EMT - Paramedic (AAS)

Degree: Associate of Applied Science  
Major: Emergency Medical Technician - Paramedic  
Program Code: 1632

## About This Major . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. (Intellectual Skills: 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/ Applied Learning)
3. Manage the collaborative health care of individuals, families, and communities through use of clear, effective, thorough, and accurate communication (Intellectual Skills/ 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/Applied Learning)
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/ 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Communication</b>		
ENGL 111	English Composition I-GTC01	3
Select one of the following courses:		3
ENGL 112	English Composition II-GTC02	
SPCH 101	Interpersonal Communications	
SPCH 102	Speechmaking	
<b>Mathematics</b>		
MATH 107	Career Math (or higher) <sup>1</sup>	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
<b>Total Semester Credit Hours</b>		<b>16</b>

<sup>1</sup> MATH 110 or higher is required for BA/BAS programs.

**Other Lower Division Requirements**

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
	Select one Activity course	1
<b>Total Semester Credit Hours</b>		<b>2</b>

**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
<b>Total Semester Credit Hours</b>		<b>45</b>

**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
EMTS 233 & 233L	Paramedic Medical Emergencies and Paramedic Medical Emergencies Laboratory	5
<b>Semester Credit Hours</b>		<b>21</b>

**Spring Semester**

EMTS 227 & 227L	Paramedic Special Considerations and Paramedic Special Considerations Laboratory	5
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EMTS 235 & 235L	Paramedic Trauma Emergencies and Paramedic Trauma Emergencies Laboratory	5
EMTS 237	Paramedic Internship Preparation	2
EMTS 280	Paramedic Internship I	6
EMTS 281	Paramedic Internship II	6
<b>Semester Credit Hours</b>		<b>24</b>

**Second Year****Fall Semester**

ENGL 111	English Composition I-GTCO1	3
SPCH 101	Interpersonal Communications	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
<b>Semester Credit Hours</b>		<b>18</b>
<b>Total Semester Credit Hours</b>		<b>63</b>

**Advising and Graduation Advising Process and DegreeWorks**

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## EMT - Basic (Technical Certificate)

Award: Technical Certificate

Program of Study: Emergency Medical Technician

Specialization: Basic

Program Code: 1631

### About This Program . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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 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)

### Crosswalk Between CMU and CCCS EMT Curricula

Colorado Mesa University Curriculum	Colorado Community College System Curriculum
EMTS 101 (3 credits)	EMT 125 (9 credits)
EMTS 102 (3 Credits)	EMT 170 (1 credit)
EMTS 103 (4 credits)	

## Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

**To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options."** This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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, must maintain a 2.00 cumulative GPA or higher.)

Code	Title	Semester Credit Hours
EMTS 101	Emergency Medical Technician - Basic I	3
EMTS 102	Emergency Medical Technician - Basic II	3
EMTS 103	Emergency Medical Technician - Basic III	4
<b>Total Semester Credit Hours</b>		<b>10</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
EMTS 101	Emergency Medical Technician - Basic I	3
EMTS 102	Emergency Medical Technician - Basic II	3
EMTS 103	Emergency Medical Technician - Basic III	4
<b>Semester Credit Hours</b>		<b>10</b>
<b>Total Semester Credit Hours</b>		<b>10</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## EMT - Paramedic (Technical Certificate)

Award: Technical Certificate  
Program of Study: Emergency Medical Technician  
Specialization: Paramedic  
Program Code: 1636

## About This Program . . .

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 of businesses and industries with a high potential for accidental injury or illness.

For more information on what you can do with this major, visit WCCC's [Programs of Study](#) page.

All CMU/WCCC 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 intellectual reasoning, rational inquiry, and effective problem-solving skills while maintaining empathy, professionalism, and compassion for another. (Intellectual Skills: 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/ Applied Learning)
3. Manage the collaborative health care of individuals, families, and communities through use of clear, effective, thorough, and accurate communication (Intellectual Skills/ 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/Applied Learning)
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/ 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Total Semester Credit Hours</b>		<b>45</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
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
EMTS 233 & 233L	Paramedic Medical Emergencies and Paramedic Medical Emergencies Laboratory	5
<b>Semester Credit Hours</b>		<b>21</b>
Spring Semester		
EMTS 227 & 227L	Paramedic Special Considerations and Paramedic Special Considerations Laboratory	5
EMTS 235 & 235L	Paramedic Trauma Emergencies and Paramedic Trauma Emergencies Laboratory	5
EMTS 237	Paramedic Internship Preparation	2
EMTS 280	Paramedic Internship I	6
EMTS 281	Paramedic Internship II	6
<b>Semester Credit Hours</b>		<b>24</b>
<b>Total Semester Credit Hours</b>		<b>45</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Energy Management/Landman Program Description

For more information on the BBA in Energy Management/Landman, see [Business](#) (p. 175).

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

Department of Business  
Dominguez Hall 301  
970.248.1778

## Programs of Study Bachelors/Minors

- [Energy Management/Landman, Business Administration \(BBA\)](#) (p. 188)

## Certificates

- [Energy Management/Landman \(Professional Certificate\)](#) (p. 358)

## Energy Management/Landman (Professional Certificate)

Award: Professional Certificate  
Program of Study: Energy Management/Landman  
Program Code: 1174

## About This Program . . .

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 <sup>1</sup>	3
EMGT 355	Landman Geo-Petro-Engineering <sup>1</sup>	3
EMGT 440	Energy Land Practices I <sup>1</sup>	3
EMGT 450	Energy Land Practices II	3

<sup>1</sup> 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
<b>Semester Credit Hours</b>	
	<b>3</b>

<b>Spring Semester</b>		
EMGT 350	Energy Development, Transportation, and Markets	3
<b>Semester Credit Hours</b>		<b>3</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
EMGT 440	Energy Land Practices I	3
<b>Semester Credit Hours</b>		<b>3</b>
<b>Spring Semester</b>		
EMGT 450	Energy Land Practices II	3
<b>Semester Credit Hours</b>		<b>3</b>
<b>Total Semester Credit Hours</b>		<b>12</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If your petition for graduation is denied, it will be your responsibility to apply for graduation in a subsequent semester. Your "Intent to Graduate" does not automatically move to a later graduation date.

## Engineering

See [Civil Engineering](#) (p. 232), [Electrical/Computer Engineering](#) (p. 346), [Mechanical Engineering](#) (p. 532), or [Mechanical Engineering Technology](#) (p. 532).

## English

### Program Description

Colorado Mesa University offers a Bachelor of Arts in English or English Secondary Education, a Professional Certificate in Editing and Technical Communication, and a graduate certificate in Rhetoric and Literary Studies. 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, 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 the Creative Writers Club or work as an editor for CMU's own literary magazine, *The Literary Review*, *Horizon Magazine*, or *Pinyon Poetry*, a nationally-circulating literary periodical. These opportunities provide invaluable 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 designed for those who want a career improving, producing, and sharing documents. For those who want to pursue graduate work, we offer a Graduate Certificate in Rhetoric and Literary Studies delivered online. The certificate 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. 360)
- [English \(BA\)](#) (p. 364)



- [English \(Minor\)](#) (p. 373)
- [Literature, English \(BA\)](#) (p. 367)
- [Writing, English \(BA\)](#) (p. 370)

## Certificates

- [Editing and Technical Communication \(Professional Certificate\)](#) (p. 374)

## Graduate

- [Rhetoric and Literary Studies \(Graduate Certificate\)](#) (p. 343)

# Education: Secondary Education, English (BA)

Degree: Bachelor of Arts

Major: English

Concentration: Secondary Education

Program Code: 3213

## About This Major . . .

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/Applied Learning)
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/Applied Learning)
7. Design and establish a safe, inclusive, and respectful learning environment for a diverse population of students. (Specialized Knowledge/Applied Learning)
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)
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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 110	Mathematical Investigations-GTMA1	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
PSYC 233	Human Growth and Development-GTSS3	3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>2</sup>		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> One course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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
<b>Texts</b>		
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
<b>Writing</b>		
ENGL 250	Introduction to Creative Writing	3
<b>Frameworks</b>		
ENGL 210	Introduction to Literary Studies	3
<b>Foreign Language</b>		
Select two consecutive classes in the same foreign language <sup>1</sup>		6
<b>Total Semester Credit Hours</b>		<b>24</b>

<sup>1</sup> FLAS 114 & FLAS 115 will NOT fulfill this requirement.

## 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
<i>Texts: Secondary Education Cornerstones</i>		
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
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**Secondary Education Requirements**<sup>2,3</sup>

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 497	Content Methodology Practicum	3
EDUC 497A	Methods of Teaching Secondary English <sup>4</sup>	2
EDUC 499G	Teaching Internship and Colloquia: Secondary Praxis II Exam Passed	12

**Total Semester Credit Hours 29**

- <sup>1</sup> ENGL 494 must be taken after 60 semester hours have been accumulated. A student must take the seminar in their junior year.
- <sup>2</sup> Must pass courses with a grade of "B" or better.
- <sup>3</sup> 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.
- <sup>4</sup> 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
<b>Semester Credit Hours</b>	<b>16</b>	

#### 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
<b>Semester Credit Hours</b>	<b>16</b>	

#### 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
<b>Semester Credit Hours</b>	<b>17</b>	

##### 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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
ENGL 355	Shakespeare	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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
EDUC 342	Pedagogy and Assessment: Secondary and K-12	3
EDUC 343	Teaching to Diversity	3
ENGL 421	Introduction to Literary Theory and Criticism	3
ENGL 491	Composition Theory and Practice	3
ENGL 365	Literature for Young Adults	3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Fourth Year</b>		
<b>Fall Semester</b>		
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	Content Methodology Practicum	3
EDUC 497A	Methods of Teaching Secondary English	2
<b>Semester Credit Hours</b>		<b>12</b>
<b>Spring Semester</b>		
EDUC 499G	Teaching Internship and Colloquia: Secondary	12
<b>Semester Credit Hours</b>		<b>12</b>
<b>Total Semester Credit Hours</b>		<b>120</b>

## Suggested Course Sequencing for Fall Interns

<b>First Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>17</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>19</b>

<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>14</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
ENGL 355	Shakespeare	3
ENGL 451	Understanding and Using English Grammar	3
SPCH 307	Professional Presentations	3
Upper Division English Elective		3
English Elective		3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
EDUC 342	Pedagogy and Assessment: Secondary and K-12	3
EDUC 343	Teaching to Diversity	3
ENGL 421	Introduction to Literary Theory and Criticism	3
EDUC 497A	Methods of Teaching Secondary English	2
Upper Division English Elective		3
<b>Semester Credit Hours</b>		<b>14</b>
<b>Fourth Year</b>		
<b>Fall Semester</b>		
ENGL 491	Composition Theory and Practice	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	Content Methodology Practicum	3
ENGL 494	Seminar in Literature	3
<b>Semester Credit Hours</b>		<b>13</b>
<b>Spring Semester</b>		
EDUC 499G	Teaching Internship and Colloquia: Secondary	12
<b>Semester Credit Hours</b>		<b>12</b>
<b>Total Semester Credit Hours</b>		<b>120</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student’s petition for graduation is denied, it will be her/his responsibility to consult the Registrar’s Office regarding next steps.

## English (BA)

Degree: Bachelor of Arts  
Major: English  
Program Code: 3210

### About This Major . . .

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. 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.

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- 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.
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- 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 110	Mathematical Investigations-GTMA1	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>2</sup>		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> One course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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
<b>Texts</b>		
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
<b>Writing</b>		
ENGL 250	Introduction to Creative Writing	3
<b>Frameworks</b>		
ENGL 210	Introduction to Literary Studies	3
<b>Foreign Language</b>		
Select two consecutive classes in the same foreign language <sup>1</sup>		6
<b>Total Semester Credit Hours</b>		<b>24</b>

<sup>1</sup> FLAS 114 & FLAS 115 will NOT fulfill this requirement.

## 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
<b>Texts</b>		
<i>Cultural Context: Early (Select One)</i>		3
ENGL 355	Shakespeare	
ENGL 401	Studies in American Literature I	
ENGL 403	Studies in British and Commonwealth Literature I	
<i>Cultural Context: Late (Select One)</i>		3
ENGL 402	Studies in American Literature II	
ENGL 404	Studies in British and Commonwealth Literature II	
<i>Diversity in Form, Identity, and Culture (Select One)</i>		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	
<b>Writing</b>		
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	
<b>Frameworks</b>		
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	
<b>Capstone Experience</b>		
Select one of the following:		3
ENGL 492	Seminar in Writing	
ENGL 494	Seminar in Literature	
ENGL 499	Internship	
<b>Total Semester Credit Hours</b>		<b>30</b>

<sup>1</sup> 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
<b>Total Semester Credit Hours</b>		<b>29</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
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
<b>Semester Credit Hours</b>		<b>16</b>
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
<b>Semester Credit Hours</b>		<b>16</b>
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
<b>Semester Credit Hours</b>		<b>16</b>

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
<b>Semester Credit Hours</b>		<b>16</b>

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 <sup>1</sup>		3
Writing Elective <sup>2</sup>		3
General Elective		3
<b>Semester Credit Hours</b>		<b>15</b>

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 <sup>2</sup>		3
General Elective		6
<b>Semester Credit Hours</b>		<b>15</b>

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 <sup>2</sup>		3
Upper Division General Elective		4
General Elective		3
<b>Semester Credit Hours</b>		<b>13</b>

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
<b>Semester Credit Hours</b>		<b>13</b>
<b>Total Semester Credit Hours</b>		<b>120</b>

<sup>1</sup> Diversity in Form, Identity, and Culture elective options are: ENGL 330, ENGL 335, ENGL 365, ENGL 390, ENGL 396, and ENGL 444.

<sup>2</sup> 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 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Literature, English (BA)

Degree: Bachelor of Arts  
Major: English  
Concentration: Literature  
Program Code: 3212

## About This Major . . .

### 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, 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. (Communication Fluency/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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 110	Mathematical Investigations-GTMA1	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>2</sup>		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> One course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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
Two consecutive classes in the same foreign language <sup>1</sup>		6
<b>Total Semester Credit Hours</b>		<b>24</b>

<sup>1</sup> 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
<b>English Core</b>		
ENGL 421	Introduction to Literary Theory and Criticism	3
ENGL 494	Seminar in Literature <sup>1</sup>	3
<b>Required Concentration Courses</b>		
ENGL 355	Shakespeare	3
ENGL 370	Major Author	3
ENGL 440	History of the English Language	3
or ENGL 451	Understanding and Using English Grammar	
<b>Concentration Electives</b>		
<i>American Literature Electives</i>		
Select two of the following:		6
ENGL 314	American Literature to 1830	
ENGL 315	American Literature 1830-1870	
ENGL 316	American Literature 1870-1900	

ENGL 435	American Literature 1900-1945	
ENGL 436	American Literature 1945-Present	
ENGL 438	Ethnic Experiences in U.S. Literature	
<b>English Literature Electives</b>		
Select two of the following:		6
ENGL 311	English Medieval Literature	
ENGL 313	English Renaissance Literature	
ENGL 470	18th Century British Literature	
ENGL 471	British Romanticism	
ENGL 475	Victorian Literature	
ENGL 478	20th Century British Literature	
<b>World Literature Electives</b>		
Select two of the following:		3
ENGL 301	Classical Greek and Latin Literature	
ENGL 330	Women in World Thought and Literature	
ENGL 335	The Bible as Literature	
ENGL 423	Genre Studies	
<b>Total Semester Credit Hours</b>		<b>30</b>

<sup>1</sup> 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.

It is strongly encouraged that you take additional English courses to satisfy some of your elective credits.

Code	Title	Semester Credit Hours
Select electives		29
<b>Total Semester Credit Hours</b>		<b>29</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
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 - Humanities <sup>1</sup>		3
KINE 100	Health and Wellness	1
<b>Semester Credit Hours</b>		<b>16</b>
Spring Semester		
ENGL 112	English Composition II-GTCO2	3
Elective <sup>2</sup>		3
Foundation Course - Foreign Language		3
Essential Learning - Fine Arts		3
Essential Learning - Natural Science with Lab		4
<b>Semester Credit Hours</b>		<b>16</b>

Second Year		Semester Credit Hours
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 - History		3
ENGL 250	Introduction to Creative Writing	3
KINA Activity		1
<b>Semester Credit Hours</b>		<b>16</b>
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
<b>Semester Credit Hours</b>		<b>16</b>
Third Year		
Fall Semester		
ENGL 421	Introduction to Literary Theory and Criticism	3
Upper Division Elective - American Literature		3
Upper Division Elective		3
Elective (2 courses)		6
<b>Semester Credit Hours</b>		<b>15</b>
Spring Semester		
ENGL 355	Shakespeare	3
Upper Division Elective - World Literature		3
Upper Division Elective		3
Electives (2 courses)		6
<b>Semester Credit Hours</b>		<b>15</b>
Fourth Year		
Fall Semester		
Upper Division Elective - American Literature		3
ENGL 370	Major Author	3
Upper Division Electives (2 courses)		6
Elective		2
<b>Semester Credit Hours</b>		<b>14</b>
Spring Semester		
ENGL 494	Seminar in Literature	3
ENGL 440	History of the English Language	3
Electives (2 courses)		6
<b>Semester Credit Hours</b>		<b>12</b>
<b>Total Semester Credit Hours</b>		<b>120</b>

<sup>1</sup> ENGL 150 suggested.

<sup>2</sup> ENGL 131, ENGL 132, or ENGL 231 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 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Writing, English (BA)

Degree: Bachelor of Arts  
Major: English  
Concentration: Writing  
Program Code: 3215

### About This Major . . .

#### 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 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 110	Mathematical Investigations-GTMA1	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>2</sup>		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> One course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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 <sup>1</sup>		6
<b>Total Semester Credit Hours</b>		<b>24</b>

<sup>1</sup> 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
<b>English Core</b>		
ENGL 421	Introduction to Literary Theory and Criticism	3
ENGL 494	Seminar in Literature <sup>1</sup>	3
<b>Required Concentration Courses</b>		
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	
<b>Literary Backgrounds</b>		
<i>Early Literature</i>		
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	
<i>Later Literature</i>		
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	
<b>Writing Concentration Electives</b>		
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	
<b>Total Semester Credit Hours</b>		<b>30</b>

<sup>1</sup> 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
<b>Total Semester Credit Hours</b>		<b>29</b>

## Suggested Course Plan

First Year	Semester	Credit Hours
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
ENGL 386	Roots of Modern Rhetoric	3
ENGL 355	Shakespeare	3
ENGL 440	History of the English Language	3
or ENGL 451	or Understanding and Using English Grammar	
Upper Division Writing Elective		3
Elective		3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
Elective (4 courses)		12
Upper Division Elective <sup>1</sup>		3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Fourth Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
ENGL 494	Seminar in Literature	3
Upper Division Elective <sup>2</sup>		3
Upper Division Elective		3
Elective		3
<b>Semester Credit Hours</b>		<b>12</b>
<b>Total Semester Credit Hours</b>		<b>121</b>

<sup>1</sup> ENGL 385 recommended.

<sup>2</sup> 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 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## English (Minor)

Minor: English  
Program Code: M242

## About This Minor. . .

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
<b>Required Courses</b>		
Complete 18 hours (6 courses) in English, 6 hours of which must be upper division		18
<b>Total Semester Credit Hours</b>		<b>18</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 her/his 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

## About This Program . . .

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 critical thinking, communication fluency, quantitative fluency, and specialized knowledge/applied learning. 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 <sup>1</sup>	3
ENGL 499	Internship	3
<b>Writing</b>		
Select three of the following:		9
ENGL 219	Introduction to Professional Writing-GTCO3 <sup>1</sup>	
ENGL 320	Report and Proposal Writing <sup>1</sup>	
ENGL 325	Writing for Engineers	
ENGL 385	Technical and Professional Writing <sup>1</sup>	
ENGL 425	Scientific Writing <sup>1</sup>	
<b>Technology</b>		
Select one of the following:		3
ABUS 114	Digital Layout	
ARTG 203	Adobe InDesign <sup>2</sup>	
CSCI 106	Web Page Design I	
MASS 352	Print Design and Production for Editors <sup>3</sup>	
<b>Total Semester Credit Hours</b>		<b>18</b>

- <sup>1</sup> These courses have a prerequisite of ENGL 112, which also requires completion of ENGL 111.
- <sup>2</sup> ARTG 203 is a two credit hour course. Students taking ARTG 203 to fulfill this category requirement will need to take one additional credit hour to fulfill the minimum hours required for this certificate.
- <sup>3</sup> 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		Semester Credit Hours
Fall Semester		
ENGL 392	Introduction to Copy Editing	3
<b>Semester Credit Hours</b>		<b>3</b>
Spring Semester		
Writing Courses		6
<b>Semester Credit Hours</b>		<b>6</b>
Fourth Year		
Fall Semester		
Writing Course		3
Technology Course		3
<b>Semester Credit Hours</b>		<b>6</b>
Spring Semester		
ENGL 499	Internship	3
<b>Semester Credit Hours</b>		<b>3</b>
<b>Total Semester Credit Hours</b>		<b>18</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If your petition for graduation is denied, it will be your responsibility to apply for graduation in a subsequent semester. Your "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. 681) and the minor in [Watershed Science](#) (p. 737).

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. 396).

## Contact Information

Dr. Deb Kennard, [dkennard@coloradomesa.edu](mailto:dkennard@coloradomesa.edu), 970.248.1895  
Department of Physical and Environmental Sciences  
Wubben Science 232  
970.248.1993

## Programs of Study Bachelors/Minors

- [Environmental Science and Technology \(BS\)](#) (p. 376)
- [Environmental Science and Technology \(Minor\)](#) (p. 380)

## Certificates

- [Sustainability Practices \(Professional Certificate\)](#) (p. 381)



# Environmental Science and Technology (BS)

Degree: Bachelor of Science

Major: Environmental Science and Technology

Program Code: 3443

## About This Major . . .

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. Demonstrate an understanding of terminology, concepts, theories, and practices in environmental science. (Specialized Knowledge)
2. Demonstrate the ability to design an environmental study. (Applied Learning)
3. Demonstrate the ability to analyze quantitative environmental data, effectively translate data into graphs or tables, and interpret results. (Quantitative Fluency)
4. Demonstrate the ability to use appropriate tools, technology, and methods for measuring and analyzing environmental data. (Applied Learning)
5. Identify and evaluate assumptions, hypotheses, and alternative views on environmental problems, then articulate implications and form conclusions. (Critical Thinking)
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)

## Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

**To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options."** This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 113	College Algebra-GTMA1 <sup>2,3</sup>	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>4</sup>		
Select one Natural Sciences course <sup>5</sup>		3
Select one Natural Sciences course with a lab		4
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

<sup>2</sup> This is a 4 credit course. 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.

<sup>3</sup> Students who plan to take Calculus I-GTMA1 (MATH 151) should take Precalculus Mathematics-GTMA1 (MATH 119) or Algebra for Calculus (MATH 119A) and Trigonometry for Calculus (MATH 119B) instead of College Algebra-GTMA1 (MATH 113).

<sup>4</sup> 7 semester hours, one course must include a lab.

<sup>5</sup> Students who did not pass the CHEM 131 placement exam should take CHEM 111.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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

(9-10 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: <sup>1</sup>		4-5
CHEM 123	Introduction to Environmental Chemistry	
CHEM 132 & 132L	General Chemistry II-GTSC1 and General Chemistry Laboratory II-GTSC1	
<b>Total Semester Credit Hours</b>		<b>9-10</b>

<sup>1</sup> CHEM 132/CHEM 132L is recommended for students who plan to attend graduate school.

## Program Specific Degree Requirements

(57 semester hours, must pass all courses with a grade of "C" or higher)

Code	Title	Semester Credit Hours
<b>Introduction to Environmental Science</b>		
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	
<b>Core Environmental Science Courses</b>		
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	
MATH 151	Calculus I-GT-MA1	
ENVS 475	Experimental Design and Statistical Analysis in Environmental Science	

### Environmental Science Options

Select one of the following options: 15-16

Option 1: Pollution Monitoring and Control:

ENVS 212 Environmental Health and Safety

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:

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 <sup>1</sup>
BIOL 107L	Principles of Plant Biology Laboratory <sup>1</sup>

**Total Semester Credit Hours** 42-46

<sup>1</sup> 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
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**Restricted Electives**

Select from the following additional ENVS or GIST courses to bring total credits for this section to 57: 11-15

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 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** 11-15

**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	Semester Credit Hours	
<b>Fall Semester</b>		
ENGL 111	English Composition I-GTC01	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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
GEOL 111 & 111L	Principles of Physical Geology-GTSC1 and Principles of Physical Geology Laboratory-GTSC1	4
ENGL 112	English Composition II-GTC02	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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>14</b>

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 or Calculus I-GTMA1	4-5
Essential Learning - Social and Behavioral Sciences		3
<b>Semester Credit Hours</b>		<b>15-17</b>
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
<b>Semester Credit Hours</b>		<b>14</b>
Spring Semester		
ENVS 212	Environmental Health and Safety	2
ENVS 340	Applied Atmospheric Science	3
ENVS 410	Environmental Regulatory Compliance	3
Restricted Electives		3
Essential Learning - History		3
<b>Semester Credit Hours</b>		<b>14</b>
Fourth Year		
Fall Semester		
Restricted Electives		8
General Electives		7-8
<b>Semester Credit Hours</b>		<b>15-16</b>
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Total Semester Credit Hours</b>		<b>119-122</b>

## 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
<b>Semester Credit Hours</b>		<b>15</b>
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
<b>Semester Credit Hours</b>	
<b>16</b>	

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
<b>Semester Credit Hours</b>		<b>14</b>
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 or Calculus I-GTMA1	4-5
Essential Learning - Social and Behavioral Sciences		3
<b>Semester Credit Hours</b>		<b>15-17</b>
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
<b>Semester Credit Hours</b>		<b>15</b>
Spring Semester		
Restricted Electives		5
ENVS 377	Systems Thinking in Environmental Science	3
POLS 488	Environmental Politics and Policy	3
Essential Learning - History		3
<b>Semester Credit Hours</b>		<b>14</b>
Fourth Year		
Fall Semester		
Restricted Electives		7
General Electives		7-8
<b>Semester Credit Hours</b>		<b>14-15</b>
Spring Semester		
ENVS 492	Capstone in Environmental Science and Technology	3
ENVS 455 & 455L	Restoration Ecology and Restoration Ecology Laboratory	4
General Electives		9
<b>Semester Credit Hours</b>		<b>16</b>
<b>Total Semester Credit Hours</b>		<b>119-122</b>

Spring 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
<b>Semester Credit Hours</b>		<b>15</b>
Spring Semester		
Restricted Electives		5
ENVS 377	Systems Thinking in Environmental Science	3
POLS 488	Environmental Politics and Policy	3
Essential Learning - History		3
<b>Semester Credit Hours</b>		<b>14</b>
Fourth Year		
Fall Semester		
Restricted Electives		7
General Electives		7-8
<b>Semester Credit Hours</b>		<b>14-15</b>
Spring Semester		
ENVS 492	Capstone in Environmental Science and Technology	3
ENVS 455 & 455L	Restoration Ecology and Restoration Ecology Laboratory	4
General Electives		9
<b>Semester Credit Hours</b>		<b>16</b>
<b>Total Semester Credit Hours</b>		<b>119-122</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Environmental Science and Technology (Minor)

Minor: Environmental Science and Technology  
Program Code: M440

### About This Minor. . .

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: <sup>1</sup>		
ENVS 104	Environmental Science: Global Sustainability	3-4
ENVS 101 & ENVS 105	Introduction to Environmental Science-GTSC2 and Readings in Environmental Science	
Select courses from Environmental Science and Technology (ENVS)11-12 to bring total semester hours to 15 <sup>2</sup>		
<b>Total Semester Credit Hours</b>		<b>14-16</b>

<sup>1</sup> Either ENVS 104 or ENVS 101/ENVS 105 may be taken for credit, but not both.

<sup>2</sup> 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 her/his 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 her/his 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

### About This Program . . .

"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
<b>Core Courses</b>		
Select one of the following courses:		3
ENVS 101	Introduction to Environmental Science-GTSC2 <sup>1</sup>	
ENVS 104	Environmental Science: Global Sustainability <sup>1</sup>	
<b>Total Semester Credit Hours</b>		<b>3</b>

<sup>1</sup> Either ENVS 104 or ENVS 101 may be taken for credit, but not both.

Code	Title	Semester Credit Hours
<b>Restricted Electives</b>		
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 Permaculture Design  
& 378L 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If your petition for graduation is denied, it will be your responsibility to apply for graduation in a subsequent semester. Your "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 physics, general chemistry and human anatomy and physiology. Continued studies will include courses such as exercise physiology, anatomical kinesiology, biomechanics, physical activity and aging, human nutrition and sports nutrition, among other subject areas. This major is designed to prepare students for graduate programs such as athletic training, exercise physiology, occupational therapy, physical therapy, and physician assistant studies. Exercise Science students frequently continue their study for graduate or professional degrees at universities widely

recognized as top programs in athletic training, exercise physiology, occupational therapy, physical therapy, physical education, physician assistant studies and public health.

## Contact Information

Department of Kinesiology  
Maverick Center 237B  
970.248.1635

## Programs of Study

### Bachelors/Minors

- [Exercise Science \(BS\)](#) (p. 382)
- [Exercise Science \(Minor\)](#) (p. 385)

## Exercise Science (BS)

Degree: Bachelor of Science  
Major: Exercise Science  
Program Code: 3138

## About This Major . . .

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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 113	College Algebra-GTMA1 <sup>2</sup>	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b> <sup>3</sup>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>4</sup>		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

<sup>2</sup> This is a 4 credit course. 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.

<sup>3</sup> PSYC 233 is suggested.

<sup>4</sup> 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
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course <sup>1</sup>		1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>2</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>7</b>

<sup>1</sup> KINA 128 is suggested because it is a prerequisite for KINE 403.

<sup>2</sup> 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 and Human Anatomy and Physiology 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
<b>Total Semester Credit Hours</b>		<b>20</b>

## 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
<b>Required Core Courses</b>		
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 403 or KINE 404	Advanced Strength and Conditioning Clinical Exercise Physiology and Advanced Exercise Prescription	3
KINE 405	Sports Nutrition	3
KINE 415	Physical Activity and Aging	3
KINE 494	Kinesiology Senior Seminar	1
KINE 499	Internship	3
<b>Total Semester Credit Hours</b>		<b>36</b>

Code	Title	Semester Credit Hours
<b>Restricted Electives</b>		
Select four courses from the list below. Courses listed with a lecture and a lab are counted as one course.		
BIOL 210 & 210L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Laboratory	4
BIOL 241	Pathophysiology	3
BIOL 301 & 301L	Principles of Genetics and Principles of Genetics Laboratory	4
BIOL 352 & 352L	Human Physiology and Human Physiology Laboratory	4

BIOL 409 & 409L	Gross and Developmental Human Anatomy and Gross and Developmental Human Anatomy Laboratory	4
CHEM 311 & 311L	Organic Chemistry I and Organic Chemistry I Laboratory	4
CHEM 312 & 312L	Organic Chemistry II and Organic Chemistry II Laboratory	4
CHEM 315 & 315L	Biochemistry I and Biochemistry Laboratory	4
KINE 401	Organization/Administration/Legal Considerations in Physical Education and Sports	3
KINE 403	Advanced Strength and Conditioning <sup>1</sup>	3
KINE 404	Clinical Exercise Physiology and Advanced Exercise Prescription <sup>1</sup>	3
KINE 417	Health Behavior Change	3
KINE 420	Therapeutic Interventions	3
KINE 487	Structured Research	3
PSYC 340	Abnormal Psychology	3

### Other Requirements

CPR card must be current upon graduation

**Total Semester Credit Hours** **12-18**

<sup>1</sup> 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 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
<b>Total Semester Credit Hours</b>		<b>8-14</b>

## 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		Semester Credit Hours
Fall Semester		
ENGL 111	English Composition I-GTC01	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
<b>Semester Credit Hours</b>		<b>16</b>

<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
BIOL 209 & 209L	Human Anatomy and Physiology and Human Anatomy and Physiology 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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>17</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
KINE 303 & 303L	Physiology of Exercise and Physiology of Exercise Laboratory	4
KINE 309	Anatomical Kinesiology	3
Restricted Elective		3-5
<b>Semester Credit Hours</b>		<b>14-16</b>
<b>Spring Semester</b>		
KINE 301	Health and Fitness Assessment	3
KINE 370 & 370L	Biomechanics and Biomechanics Laboratory	4
KINE 415	Physical Activity and Aging	3
KINA Activity		1
Restricted Elective		3-5
<b>Semester Credit Hours</b>		<b>14-16</b>
<b>Fourth Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>12-14</b>
<b>Spring Semester</b>		
KINE 494	Kinesiology Senior Seminar	1
KINE 499	Internship	3
Restricted Elective		3-5
Electives (2 courses)		6
<b>Semester Credit Hours</b>		<b>13-15</b>
<b>Total Semester Credit Hours</b>		<b>116-124</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Exercise Science (Minor)

Minor: Exercise Science  
Program Code: M104

## About This Minor. . .

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	3
BIOL 209L	Human Anatomy and Physiology Laboratory	1
KINE 213	Applications of Physical Fitness and Exercise Prescription	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	
Complete one of the following:		3

KINE 265 Emergency Care

KINE 250 Lifeguard Training

### 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 her/his 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 her/his responsibility to consult the Registrar's Office regarding next steps.

## Finance

(See [Business](#) (p. 175))

## Fire Science Technology Program Description

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 WCCC/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.

## Contact Information

Office of Student Services  
WCCC, Bishop B102  
2508 Blichmann Avenue  
[970.255.2670](tel:970.255.2670)

## Programs of Study Certificates

- [Fire Academy Level 1 \(TCT\)](#) (p. 387)

## Associates

- [Fire Science Technology \(AAS\)](#) (p. 388)

## Fire Academy Level 1 (TCT)

Award: Technical Certificate  
Specialization: Fire Academy Level 1  
Program Code: 1167

## About This Certificate . . .

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 WCCC/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 [WCCC's Programs of Study page](#).

All CMU/WCCC 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. 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Required Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>16</b>

## 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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Total Semester Credit Hours</b>		<b>16</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Fire Science Technology (AAS)

Degree: Associate of Applied Science

Major: Fire Science Technology

Program Code: 1314

## About This Major . . .

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 WCCC/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 [WCCC's Programs of Study page](#).

All CMU/WCCC 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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 201 Instructional Methodology
  - 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
<b>English</b>		
ENGL 111	English Composition I-GTC01	3
Select one of the following courses:		3
ENGL 112	English Composition II-GTC02	
SPCH 101	Interpersonal Communications	
SPCH 102	Speechmaking	
<b>Mathematics</b>		
MATH 113	College Algebra-GTMA1 (or higher)	4
<b>Other Essential Learning Core Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>16</b>

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirements</b>		
KINE 100	Health and Wellness	1
KINA 127	Physical Conditioning	1
<b>Total Semester Credit Hours</b>		<b>2</b>

## 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 202	Strategy and Tactics	3
FSTR 206	Fire Officer Supervision and Leadership	3
FSTR 209	Fire Protection Systems	3
<b>Total Semester Credit Hours</b>		<b>45</b>

## Suggested Course Plan

		Semester Credit Hours
<b>First Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
FSTR 103	Fire Behavior and Combustion	3
FSTR 151	Driver-Operator	3
FSTR 209	Fire Protection Systems	3
EMTS 115	Emergency Medical Responder	3
ENGL 111	English Composition I-GTCO1	3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
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 Communications	
SPCH 102	Speechmaking	
<b>Semester Credit Hours</b>		<b>16</b>
<b>Total Semester Credit Hours</b>		<b>63</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## 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. 390)

## Fitness and Health Promotion (BS)

Degree: Bachelor of Science  
Major: Fitness and Health Promotion  
Program Code: 3150

## About This Major...

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<sup>1</sup> programs; managers and exercise leaders in corporate wellness programs; nutritionists<sup>1</sup>; occupational therapists<sup>1</sup>; and personal trainers.

<sup>1</sup> 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 113	College Algebra-GTMA1 <sup>2</sup>	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b>		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> 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
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
KINA 1XX	Activity Course	1
KINA 1XX	Activity Course	1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>7</b>

<sup>1</sup> 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: <sup>1</sup>		
CSCI 110 & 110L	Beginning Programming and Beginning Programming Laboratory	3-4
STAT 200	Probability and Statistics-GTMA1	
KINE 203	Human Nutrition	3
BIOL 209 & 209L	Human Anatomy and Physiology and Human Anatomy and Physiology Laboratory	4
Complete one of the following:		
KINE 250	Lifeguard Training	3
KINE 265	Emergency Care	
<b>Total Semester Credit Hours</b>		<b>13-14</b>

<sup>1</sup> 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 or KINE 411	Community Health Worksite Health Promotion	3
KINE 403 or KINE 404	Advanced Strength and Conditioning Clinical Exercise Physiology and Advanced Exercise Prescription	3
KINE 405	Sports Nutrition	3
KINE 415	Physical Activity and Aging	3
KINE 494	Kinesiology Senior Seminar	1
KINE 499	Internship	3

### Restricted Electives

Select three courses from the following:<sup>1</sup> 9-10

BIOL 315	Epidemiology	
KINE 333	Community Health <sup>2</sup>	
KINE 370 & 370L	Biomechanics and Biomechanics Laboratory	
KINE 401	Organization/Administration/Legal Considerations in Physical Education and Sports	
KINE 403	Advanced Strength and Conditioning <sup>3</sup>	
KINE 404	Clinical Exercise Physiology and Advanced Exercise Prescription <sup>3</sup>	
KINE 411	Worksite Health Promotion <sup>2</sup>	
KINE 417	Health Behavior Change	
KINE 430	Medical Conditions and Pharmacology in Sports	
KINE 480	Inclusive Physical Activity	
KINE 487	Structured Research	
KINE 396 or KINE 496	Topics 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**

<sup>1</sup> Courses with a lecture and lab are counted as one course.

<sup>2</sup> KINE 333/KINE 411 may not be double counted from the list of major requirements.

<sup>3</sup> 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. 20-24 semester hours.)

Code	Title	Semester Credit Hours
MATH 113	College Algebra-GTMA1	1
Select additional electives		19-23
<b>Total Semester Credit Hours</b>		<b>20-24</b>

## 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		Semester Credit Hours
Fall Semester		
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
<b>Semester Credit Hours</b>		<b>17</b>
Spring Semester		
BIOL 209 & 209L	Human Anatomy and Physiology and Human Anatomy and Physiology 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
<b>Semester Credit Hours</b>		<b>17</b>
Second Year		
Fall Semester		
CSCI 110 & 110L or STAT 200	Beginning Programming <sup>1</sup> or Probability and Statistics-GTMA1	3-4
KINE 250 or KINE 265	Lifeguard Training or Emergency Care	3
KINA 1XX	Activity course	1
Essential Learning - Natural Science with Lab		4
Essential Learning - Humanities		3
General Elective		3
<b>Semester Credit Hours</b>		<b>17-18</b>
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
<b>Semester Credit Hours</b>		<b>16</b>
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
KINA 128	Intermediate Weight Training	1
General Elective		3
<b>Semester Credit Hours</b>		<b>14</b>
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	
<b>Semester Credit Hours</b>		<b>15</b>
Fourth Year		
Fall Semester		
KINE 310	Methods of Exercise Instruction	3
Restricted Elective	6-7	
General Elective	3-4	
<b>Semester Credit Hours</b>		<b>12-14</b>
Spring Semester		
KINE 494	Kinesiology Senior Seminar	1
KINE 499	Internship	6
General Elective (if needed)		6-7
<b>Semester Credit Hours</b>		<b>13-14</b>
<b>Total Semester Credit Hours</b>		<b>121-125</b>

<sup>1</sup> 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 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his 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  
Lowell Heiny Hall 413  
970.248.1696

## Programs of Study Bachelors/Minors

- [Forensic Anthropology \(Minor\)](#) (p. 394)

## Forensic Anthropology (Minor)

Minor: Forensic Anthropology  
Program Code: M715

## About This Minor. . .

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:		
ANTH 270 & 270L	Death and Forensic Science and Death and Forensic Science Laboratory	3-4
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 <sup>1</sup>	3-4
CRMJ 280 & 280L	Crime Scene Processing and Crime Scene Processing Laboratory	3
Select 6 credits of the following:		
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 <sup>2</sup>	
FOAN 475	Human Remains Detection and Recovery for Medico-Legal Investigations	
<b>Total Semester Credit Hours</b>		<b>21-23</b>

<sup>1</sup> 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.

<sup>2</sup> 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 her/his 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 her/his responsibility to consult the Registrar's Office regarding next steps.

## Forensic Investigation - Criminal Justice

(See [Criminal Justice](#) (p. 265))

## Forensic Investigation - Psychology

(See [Psychology](#) (p. 633))

## Forensic Science

### Program Description

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 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. 395)

## Forensic Science (Minor)

Minor: Forensic Science

Program Code: M480

### About This Minor. . .

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 & 315L	Biochemistry I and Biochemistry Laboratory	4
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 and Human Anatomy and Physiology 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	
<b>Total Semester Credit Hours</b>		<b>24-26</b>

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 her/his 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 her/his 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](mailto:vjohnson@coloradomesa.edu) ([johnson@coloradomesa.edu](mailto: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. 398)

### Certificates

- [Geographic Information Science and Technology \(Professional Certificate\)](#) (p. 396)

## Geographic Information Science and Technology (Professional Certificate)

Award: Professional Certificate  
Program of Study: Geographic Information Science and Technology  
Program Code: 1770

### About This Program . . .

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 5-9 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:		
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:		
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	
XXXX 395	Independent Study <sup>1</sup>	
XXXX 495	Independent Study <sup>1</sup>	
XXXX 497	Practicum <sup>1</sup>	
<b>Total Semester Credit Hours</b>		<b>16-18</b>

<sup>1</sup> Must have a GIS focus and be approved by the GIS program advisor.

## Suggested Course Plan

First Year		Semester Credit Hours
<b>Fall Semester</b>		
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 <sup>1</sup>	3
<b>Semester Credit Hours</b>		<b>4-6</b>
<b>Spring Semester</b>		
GIST 422 & 422L	GIS Data Management and Editing and GIS Data Management and Editing Laboratory	3
3 credit hours of any restricted elective		3
<b>Semester Credit Hours</b>		<b>6</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
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	
<b>Semester Credit Hours</b>		<b>6</b>
<b>Total Semester Credit Hours</b>		<b>16-18</b>

<sup>1</sup> 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If your petition for graduation is denied, it will be your responsibility to apply for graduation in a subsequent semester. Your "Intent to Graduate" does not automatically move to a later graduation date.

## Geographic Information Science and Technology (Minor)

Minor: Geographic Information Science and Technology  
Program Code: M752

### About This Minor. . .

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
Select one of the following courses:		1-3
GIST 305	Cartography for GIS	
GEOG 131	Introduction to Cartography	
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 a minimum of six semester hours of the following:		6
CIVE 212	Introduction to Geomatics	
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	
XXXX 395	Independent Study <sup>1</sup>	
XXXX 495	Independent Study <sup>1</sup>	
XXXX 497	Independent Study <sup>1</sup>	
<b>Total Semester Credit Hours</b>		<b>16-18</b>

<sup>1</sup> 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 her/his 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 her/his responsibility to consult the Registrar's Office regarding next steps.

## 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, a seismometer 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. 737) 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. 396).

## Contact Information

Andres Aslan, [aaaslan@coloradomesa.edu](mailto:aaaslan@coloradomesa.edu), 970.248.1418  
Department of Physical and Environmental Sciences  
Wubben Science 232  
970.248.1993

## Programs of Study Associates

- [Geology, Liberal Arts \(AS\)](#) (p. 410)

## Bachelors/Minors

- [Education: Secondary Education, Geosciences \(BS\)](#) (p. 407)
- [Environmental Geology, Geosciences \(BS\)](#) (p. 400)
- [Geology \(Minor\)](#) (p. 412)
- [Geology, Geosciences \(BS\)](#) (p. 403)
- [Watershed Science \(Minor\)](#) (p. 414)

## Environmental Geology, Geosciences (BS)

Degree: Bachelor of Science  
Major: Geosciences  
Concentration: Environmental Geology  
Program Major Code: 3473

## About This Major . . .

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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 151	Calculus I-GTMA1 <sup>2</sup>	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		

Select one Fine Arts course	3
<b>Natural Sciences</b>	
Select one Natural Sciences course	3
Select one Natural Sciences course with a lab <sup>3</sup>	4
<b>Total Semester Credit Hours</b>	<b>31</b>

- <sup>1</sup> Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.
- <sup>2</sup> This is a 5 semester credit hour course. 3 credits apply to the Essential Learning Requirements and 2 credits apply to Foundation Courses.
- <sup>3</sup> 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
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

- <sup>1</sup> 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

(19 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: <sup>1</sup>		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	
You must take one of the following course sequences: <sup>2</sup>		5
PHYS 111 & 111L	General Physics-GTSC1 and General Physics Laboratory-GTSC1	
PHYS 131 & 131L	Fundamental Mechanics-GTSC1 and Fundamental Mechanics Laboratory-GTSC1	
STAT 200	Probability and Statistics-GTMA1	3

MATH 151	Calculus I-GT-MA1 <sup>3</sup>	2
<b>Total Semester Credit Hours</b>		<b>19</b>

<sup>1</sup> Either GEOL 111/GEOL 111L or GEOL 113/GEOL 113L may be taken for credit, but not both.

<sup>2</sup> Either PHYS 111/PHYS 111L or PHYS 131/PHYS 131L may be taken for credit, but not both.

<sup>3</sup> 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

(58 semester hours, must earn a grade of "C" or better in each course)

Code	Title	Semester Credit Hours
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### Core Courses

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
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** **49**

Code	Title	Semester Credit Hours
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### Restricted Electives<sup>2</sup>

Select 9 semester hours from the following list:<sup>1</sup> **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 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-GTSC1 and General Physics Laboratory-GTSC1 <sup>2</sup>	
PHYS 132 & 132L	Electromagnetism and Optics-GTSC1 and Electromagnetism and Optics Laboratory-GTSC1 <sup>2</sup>	

**Total Semester Credit Hours** **9**

<sup>1</sup> Four hours of Restricted and General Electives must be upper division.

<sup>2</sup> 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
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Select electives **6**

**Total Semester Credit Hours** **6**

## Suggested Course Plan

### First Year

Fall Semester	Semester Credit Hours
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ENGL 111 English Composition I-GTCO1 **3**

MATH 151 Calculus I-GT-MA1 **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**

<b>Second Year</b>		
<b>Fall Semester</b>		
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-GTSC1 and General Physics Laboratory-GTSC1	
PHYS 131 & 131L	Fundamental Mechanics-GTSC1 and Fundamental Mechanics Laboratory-GTSC1	
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>13</b>
<b>Fourth Year</b>		
<b>Fall Semester</b>		
GEOL 402 & 402L	Applications of Geomorphology and Applications of Geomorphology Laboratory	4
Restricted Electives		5
General Electives		3
<b>Semester Credit Hours</b>		<b>12</b>
<b>Spring Semester</b>		
KINA Activity		1
GEOL 444 & 444L	Sedimentology and Stratigraphy and Sedimentology and Stratigraphy Laboratory	4
GEOL 490	Seminar	3
Restricted Electives		4
<b>Semester Credit Hours</b>		<b>12</b>
<b>Summer Semester</b>		
GEOL 480	Summer Field Camp	6
<b>Semester Credit Hours</b>		<b>6</b>
<b>Total Semester Credit Hours</b>		<b>120</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Geology, Geosciences (BS)

Degree: Bachelor of Science  
Major: Geosciences  
Concentration: Geology  
Program Code: 3472

## About This Major . . .

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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 151	Calculus I-GT-MA1 <sup>2</sup>	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b>		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab <sup>3</sup>		4
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

<sup>2</sup> This is a 5 semester credit hour course. 3 credits apply to the Essential Learning Requirements and 2 credits apply to Foundation Courses.

<sup>3</sup> 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
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone <sup>1</sup></b>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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

(19 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: <sup>1</sup>		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	
You must take one of the following course sequences: <sup>2</sup>		5
PHYS 111 & 111L	General Physics-GTSC1 and General Physics 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 <sup>3</sup>	2
<b>Total Semester Credit Hours</b>		<b>19</b>

<sup>1</sup> Either GEOL 111/GEOL 111L or GEOL 113/GEOL 113L may be taken for credit, but not both.

<sup>2</sup> Either PHYS 111/PHYS 111L or PHYS 131/PHYS 131L may be taken for credit, but not both.

<sup>3</sup> 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

(52 semester hours, must earn a grade of "C" or better in each course)

Code	Title	Semester Credit Hours
<b>Core Courses</b>		
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
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
<b>Required Geology Courses</b>		
GEOL 340 & 340L	Igneous and Metamorphic Petrology and Igneous and Metamorphic Petrology Laboratory	4
GEOL 404 & 404L	Geophysics and Geophysics Laboratory	4
<b>Total Semester Credit Hours</b>		<b>43</b>
Code	Title	Semester Credit Hours
<b>Restricted Electives</b>		
Select 9 semester hours of the following: <sup>1</sup>		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 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-GTSC1 and General Physics Laboratory-GTSC1 <sup>2</sup>
PHYS 132 & 132L	Electromagnetism and Optics-GTSC1 and Electromagnetism and Optics Laboratory-GTSC1 <sup>2</sup>
<b>Total Semester Credit Hours</b>	
<b>9</b>	

<sup>1</sup> Seven hours of Restricted and General Electives must be upper division.

<sup>2</sup> 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
<b>Total Semester Credit Hours</b>		<b>12</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
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
<b>Semester Credit Hours</b>		<b>15</b>
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
<b>Semester Credit Hours</b>		<b>14</b>
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-GTSC1 and General Physics Laboratory-GTSC1	
PHYS 131 & 131L	Fundamental Mechanics-GTSC1 and Fundamental Mechanics Laboratory-GTSC1	
<b>Semester Credit Hours</b>		<b>16</b>

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
<b>Semester Credit Hours</b>		<b>14</b>

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
<b>Semester Credit Hours</b>		<b>14</b>

Spring Semester		
GEOL 340 & 340L	Igneous and Metamorphic Petrology and Igneous and Metamorphic Petrology Laboratory	4
Essential Learning - Fine Arts		3
General Electives		9
<b>Semester Credit Hours</b>		<b>16</b>

Fourth Year		
Fall Semester		
GEOL 402 & 402L	Applications of Geomorphology and Applications of Geomorphology Laboratory	4
Restricted Electives		9
<b>Semester Credit Hours</b>		<b>13</b>

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
<b>Semester Credit Hours</b>		<b>12</b>

Summer Semester		
GEOL 480	Summer Field Camp	6
<b>Semester Credit Hours</b>		<b>6</b>
<b>Total Semester Credit Hours</b>		<b>120</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his 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

### About This Major . . .

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)
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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>2</sup>		
MATH 113	College Algebra-GTMA1 (or higher) <sup>3</sup>	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		

Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
PSYC 233	Human Growth and Development-GTSS3 <sup>4</sup>	3
Select one Social and Behavioral Sciences course <sup>5</sup>		3
<b>Fine Arts</b>		
Select one Fine Arts Course		3
<b>Natural Sciences</b> <sup>6</sup>		
BIOL 105	Attributes of Living Systems-GTSC1	3
BIOL 105L	Attributes of Living Systems Laboratory-GTSC1	1
Select one Natural Science course		3
<b>Total Semester Credit Hours</b>		<b>31</b>

- <sup>1</sup> Must receive a grade of "B" or better and must be completed by the time the student has 60 semester hours.
- <sup>2</sup> Must receive a grade of "C" or better, must be completed by the time the student has 60 semester hours.
- <sup>3</sup> This is a 4 semester credit hour course. 3 credits apply to the Essential Learning requirements and one credit applies to foundation courses.
- <sup>4</sup> Must receive a grade of "B" or better.
- <sup>5</sup> GEOG 103 - World Regional Geography (3) recommended.
- <sup>6</sup> One course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

- <sup>1</sup> 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 <sup>1</sup>	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-GTSC1	4
PHYS 111L	General Physics Laboratory-GTSC1	1
MATH 130	Trigonometry	3
<b>Total Semester Credit Hours</b>		<b>17</b>

<sup>1</sup> 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
<b>Core Courses</b>		
GEOL 103 or GEOL 104	Weather and Climate-GTSC2 Oceanography-GT-SC2	3
Select one of the following: <sup>1</sup>		4
GEOL 111 & 111L	Principles of Physical Geology-GTSC1 and Principles of Physical Geology Laboratory-GTSC1	3
GEOL 113 & 113L	Field-Based Introduction to Physical Geology-GTSC1 and Field-Based Introduction to Physical Geology Laboratory-GTSC1	3
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
<b>Total Semester Credit Hours</b>		<b>40</b>

<sup>1</sup> 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 497	Content Methodology Practicum (80 field experience hours)	3
EDUC 497D	Methods of Teaching Secondary Science <sup>1</sup>	2
EDUC 499G	Teaching Internship and Colloquia: Secondary (600 field experience hours)	12
Praxis II Exam Passed		
<b>Total Semester Credit Hours</b>		<b>29</b>

<sup>1</sup> 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
<b>Total Semester Credit Hours</b>		<b>3</b>

## Suggested Course Plan

First Year	Fall Semester	Semester Credit Hours
GEOL 103 or GEOL 104	Weather and Climate-GTSC2 or Oceanography-GT-SC2	3
Select one of the following:		4
GEOL 111 & 111L	Principles of Physical Geology-GTSC1 and Principles of Physical Geology Laboratory-GTSC1	3
GEOL 113 & 113L	Field-Based Introduction to Physical Geology-GTSC1 and Field-Based Introduction to Physical Geology Laboratory-GTSC1	3
ENGL 111	English Composition I-GTC01	3
MATH 113	College Algebra-GTMA1	4
KINE 100	Health and Wellness	1
<b>Semester Credit Hours</b>		<b>15</b>

<b>Spring Semester</b>		
GEOL 112 & 112L	Principles of Historical Geology-GTSC1 and Principles of Historical Geology Laboratory-GTSC1	4
ENGL 112	English Composition II-GTCO2	3
MATH 130	Trigonometry	3
PSYC 233	Human Growth and Development-GTSS3	3
GEOG 103	World Regional Geography-GTSS2	3
<b>Semester Credit Hours</b>		<b>16</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
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-GTSC1 and General Physics Laboratory-GTSC1	5
EDUC 115	What It Means To Be An Educator	1
<b>Semester Credit Hours</b>		<b>17</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>17</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>17</b>
<b>Fourth Year</b>		
<b>Fall Semester</b>		
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 497	Content Methodology Practicum	3
EDUC 497D	Methods of Teaching Secondary Science	2
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
EDUC 499G	Teaching Internship and Colloquia: Secondary	12
<b>Semester Credit Hours</b>		<b>12</b>
<b>Total Semester Credit Hours</b>		<b>126</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his 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

## About This Major . . .

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/WCCC 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 113	College Algebra-GTMA1 <sup>2</sup>	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>3</sup>		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

<sup>2</sup> This is a 4 credit hour course. 3 credits apply to the Essential Learning requirements and 1 credit applies to Required Geology Specialization courses.

<sup>3</sup> 7 semester hours, one course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Total Semester Credit Hours</b>		<b>2</b>

## Program Specific Degree Requirements

(27 semester hours, must earn a "C" or better in each course.)

Code	Title	Semester Credit Hours
<b>Core Courses</b>		
Complete one of the following course pairs : <sup>1</sup>		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
<b>Required Geology Specialization Courses <sup>2</sup></b>		
MATH 113	College Algebra-GTMA1 <sup>3</sup>	1
GEOG 131	Introduction to Cartography	3
Select 12 additional semester hours		12
<b>Total Semester Credit Hours</b>		<b>27</b>

<sup>1</sup> Either GEOL 111/GEOL 111L or GEOL 113/GEOL 113L may be taken for credit, but not both.

<sup>2</sup> To be selected in consultation with student's advisor.

<sup>3</sup> 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
<b>Semester Credit Hours</b>		<b>15</b>

#### 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
<b>Semester Credit Hours</b>		<b>15</b>

### 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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
Geology Specialization Selection <sup>1</sup>		5
Geology Specialization Selection		4
Essential Learning - History		3
Essential Learning - Social and Behavioral Sciences		3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Total Semester Credit Hours</b>		<b>60</b>

<sup>1</sup> 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 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Geology (Minor)

Minor: Geology  
Program Code: M420

## About This 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 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: <sup>1</sup>		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: <sup>2</sup>		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	
<b>Total Semester Credit Hours</b>		<b>21</b>

<sup>1</sup> Either GEOL 111/GEOL 111L or GEOL 113/GEOL 113L may be taken for credit, but not both.

<sup>2</sup> 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 her/his 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 her/his responsibility to consult the Registrar's Office regarding next steps.

## Watershed Science (Minor)

Minor: Watershed Science  
Program Code: M470

### About This Minor. . .

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 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	
GIST 305	Cartography for GIS	

**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 her/his 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 her/his 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, cognitive 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.

## Contact Information

Office of Student Services  
WCCC, Bishop B102  
2508 Blichmann Avenue  
970.255.2670

## Programs of Study Associates

- [Gerontology Specialist \(AAS\)](#) (p. 418)

## Certificates

- [Behavioral and Cognitive Care, Gerontology \(Technical Certificate\)](#) (p. 415)
- [End of Life Care, Gerontology \(Technical Certificate\)](#) (p. 416)

## Behavioral and Cognitive Care, Gerontology (Technical Certificate)

Award: Technical Certificate  
Program of Study: Gerontology  
Specialization: Behavioral and Cognitive Care  
Program Code: 1165

## About This Program . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Total Semester Credit Hours</b>		<b>15</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
GRNT 110	Introduction to Gerontology	3
GRNT 175	The Aging Mind	3
GRNT 176	Cognitive Activity Design	2
<b>Semester Credit Hours</b>		<b>8</b>
Spring Semester		
GRNT 235	Introduction to Dementia Care	3
GRNT 236	Dementia Care Practices	1
GRNT 246	Aging and Mental Health	3
<b>Semester Credit Hours</b>		<b>7</b>
<b>Total Semester Credit Hours</b>		<b>15</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## End of Life Care, Gerontology (Technical Certificate)

Award: Technical Certificate  
Program of Study: Gerontology  
Specialization: End of Life Care  
Program Code: 1166

## About This Program . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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		Semester Credit Hours
Fall Semester		
GRNT 110	Introduction to Gerontology	3
GRNT 233	Supporting End of Life	3
GRNT 234	Hospice Care	1
<b>Semester Credit Hours</b>		<b>7</b>
Spring Semester		
GRNT 245	Health and Aging	3
GRNT 250	Death: Cross-Cultural Perspectives	3
<b>Semester Credit Hours</b>		<b>6</b>
<b>Total Semester Credit Hours</b>		<b>13</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Gerontology Specialist (AAS)

Degree: Associate of Applied Science

Major: Gerontology Specialist

Program Code: 1305

### About This Major...

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Communication</b>		
ENGL 111	English Composition I-GTCO1	3
Select one of the following: 3		
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communications	
SPCH 102	Speechmaking	
<b>Mathematics</b>		
MATH 107	Career Math (or higher)	3
<b>Other Essential Learning Core Courses</b>		
PSYC 233	Human Growth and Development-GTSS3	3
BIOL 101 & 101L	General Human Biology-GTSC1 and General Human Biology Laboratory-GTSC1	4
<b>Total Semester Credit Hours</b>		<b>16</b>

## Other Lower Division Requirements

(2 semester hours)

Code	Title	Semester Credit Hours
<b>Wellness Requirements</b>		
KINE 100	Health and Wellness	1
Select one Activity course 1		
<b>Total Semester Credit Hours</b>		<b>2</b>

## 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
<b>Total Semester Credit Hours</b>		<b>45</b>

## Suggested Course Plan

(63 Hours Required)

First Year		Semester Credit Hours
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
Select one of the following: 3		
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communications	
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Total Semester Credit Hours</b>		<b>63</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Graphic Design

### Program Description

The Bachelor of Fine Arts degree with a Graphic Design: Visual 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 in the Programs of Study tab for program requirement details.

## Contact Information

Department of Art and Design  
Fine Arts 200  
970.248.1833

## Programs of Study Bachelors/Minors

- [Graphic Design \(Minor\)](#) (p. 423)
- [Visual Design, Graphic Design \(BFA\)](#) (p. 420)

## Visual Design, Graphic Design (BFA)

Degree: Bachelor of Fine Arts  
Major: Graphic Design  
Concentration: Visual Design  
Program Code: 3274

### About This Major . . .

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, ARTE 102 Three-Dimensional Design, ARTG 215 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 110	Mathematical Investigations-GTMA1	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		

Select one Fine Arts course	3
<b>Natural Sciences</b> <sup>2</sup>	
Select one Natural Sciences course	3
Select one Natural Sciences course with a lab	4
<b>Total Semester Credit Hours</b>	<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> One course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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
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
<b>Total Semester Credit Hours</b>		<b>15</b>

## Program Specific Degree Requirements

(57 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
<b>Art History Course</b>		
ARTH 324	History of Graphic Design	3
<b>Graphic Design Courses</b>		
ARTG 122	Design It	3
ARTG 215	Graphic Design I	3
ARTG 220	UX Design I	3
ARTG 221	Graphic Design II	3
ARTG 222	Illustration I	3

ARTG 290	UX Design II	3
ARTG 301	Digital Illustration	3
ARTG 320	Letterforms and Typography	3
ARTG 321	Advanced Typography	3
ARTG 333	Illustration II	3
ARTG 337	Illustration III	3
ARTG 338	Brand Design	3
ARTG 360	Sketchbook	3
ARTG 401	Digital Painting	3
ARTG 405	UX Design III	3
ARTG 406	UX Design IV	3
ARTG 450	Identity Design	3
ARTG 493	Portfolio Development	3
<b>Total Semester Credit Hours</b>		<b>57</b>

## 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
<b>Total Semester Credit Hours</b>		<b>11</b>

## Suggested Course Plan

<b>First Year</b>		
<b>Fall Semester</b>		
ARTS 151	Foundation Drawing I	3
ARTG 122	Design It	3
ARTE 101	Two-Dimensional Design-GTAH1	3
ENGL 111	English Composition I-GTC01	3
MATH 110	Mathematical Investigations-GTMA1	3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
ARTE 102	Three-Dimensional Design-GTAH1	3
ARTE 118	History of Art, Prehistory to Renaissance-GTAH1	3
ARTG 215	Graphic Design I	3
ENGL 112	English Composition II-GTC02	3
Essential Learning - Social and Behavioral Sciences		3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
ARTG 221	Graphic Design II	3
ARTG 222	Illustration I	3
ARTG 220	UX Design I	3
Essential Learning - History		3
Essential Learning - Natural Science with Lab		4
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
ARTG 290	UX Design II	3
ARTG 301	Digital Illustration	3
ARTG 320	Letterforms and Typography	3
ARTG 333	Illustration II	3

ESSL 200	Essential Speech	1
ESSL 290	Maverick Milestone	3
<b>Semester Credit Hours</b>		<b>16</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
ARTG 337	Illustration III	3
ARTG 338	Brand Design	3
ARTG 405	UX Design III	3
Essential Learning - Humanities		3
KINA Activity		1
Essential Learning - Natural Science		3
<b>Semester Credit Hours</b>		<b>16</b>
<b>Fourth Year</b>		
<b>Fall Semester</b>		
ARTG 406	UX Design IV	3
ARTG 450	Identity Design	3
Essential Learning - Social and Behavioral Sciences		3
General Electives (6 hours)		6
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
ARTG 493	Portfolio Development	3
General Electives (5 hours)		5
Essential Learning - Fine Arts		3
<b>Semester Credit Hours</b>		<b>11</b>
<b>Total Semester Credit Hours</b>		<b>120</b>

- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and 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 her/his responsibility to consult the Registrar's Office regarding next steps.

## Graphic Design (Minor)

Minor: Graphic Design  
Program Code: M201

### About This Minor. . .

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.

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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.



- 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
<b>Lower Division Required Courses</b>		
ARTE 101	Two-Dimensional Design-GTAH1	3
ARTE 102	Three-Dimensional Design-GTAH1	3
ARTG 215	Graphic Design I	3
ARTG 221	Graphic Design II	3
ARTG 222	Illustration I	3
<b>Upper Division Required Courses</b>		
ARTG 301	Digital Illustration	3
ARTG 320	Letterforms and Typography	3
ARTG 321	Advanced Typography	3
<b>Total Semester Credit Hours</b>		<b>24</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 her/his 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 her/his 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 certification, plus ICE certification (Industry Competency Exams), administered by the Air Conditioning, Heating & Refrigeration Institute, located in Arlington, Virginia. ICE 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, air flow 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 air flow problems, analysis and troubleshooting 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.

### Contact Information

Office of Student Services  
WCCC, Bishop B102  
2508 Blichmann Avenue  
970.255.2670

### Programs of Study

#### Associates

- [Heating Ventilation and Air Conditioning Technician \(AAS\)](#) (p. 424)

#### Certificates

- [HVAC: HVAC Fundamentals \(TCT\)](#) (p. 427)

## Heating Ventilation and Air Conditioning Technician (AAS)

### Overview

Degree: Associate of Applied Science  
Major: Heating Ventilation and Air Conditioning  
Program Code: 1388

## About This Major . . .

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 ICE certification (Industry Competency Exams), administered by the Air Conditioning, Heating & Refrigeration Institute, located in Arlington, Virginia. ICE 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, air flow 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 air flow problems, analysis and troubleshooting 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.

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 [WCCC's Programs of Study page](#).

All CMU/WCCC 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 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)
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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>English</b>		
ENGL 111	English Composition I-GTCO1	3
Select one of the following courses:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communications	
SPCH 102	Speechmaking	
<b>Mathematics</b>		
MATH 107	Career Math (or higher)	3
<b>Other Essential Learning Core Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>15</b>

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirements</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Total Semester Credit Hours</b>		<b>2</b>

## 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 204	Direct Digital Controls	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
<b>Total Semester Credit Hours</b>		<b>44</b>

## Suggested Course Plan

First Year		Semester Credit Hours
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
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 Communications	
SPCH 102	Speechmaking	
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
HVAC 204	Direct Digital Controls	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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Total Semester Credit Hours</b>		<b>61</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## HVAC: HVAC Fundamentals (TCT)

### Overview

Award: Technical Certificate

Program of Study: Heating, Ventilation, and Air Conditioning

Specialization: HVAC Fundamentals

Program Code: 1161

### About This Program . . .

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 [WCCC's Programs of Study page](#).

All CMU/WCCC 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 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Total Semester Credit Hours</b>		<b>16</b>

## 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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Total Semester Credit Hours</b>		<b>16</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## History

### Program Description

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. 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.

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 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.

## Contact Information

Department of Social and Behavioral Sciences  
Lowell Heiny Hall 413  
970.248.1696

## Programs of Study Bachelors/Minors

- [Education: Secondary Education, History \(BA\)](#) (p. 431)
- [History \(BA\)](#) (p. 428)
- [History \(Minor\)](#) (p. 435)
- [Public History \(Minor\)](#) (p. 436)

## History (BA)

Degree: Bachelor of Arts  
Major: History  
Program Code: 3716

## About This Major . . .

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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 110	Mathematical Investigations-GTMA1	3
<b>History</b>		
HIST 131	United States History I-GTHI1	3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>2</sup>		
Select one Natural Sciences course with lab		4
Select one Natural Sciences course		3
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> One course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity Course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		

ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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 <sup>1</sup>		
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> Must receive a grade of "C" or better. FLAS 114 and FLAS 115 will not fulfill this requirement.

## 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
<b>History Core</b>		
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 394	Junior Seminar in Historiography	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 two of the following: 6	
HIST 310	Latin American Civilization
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 315	American Indian 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 1950's and 1960's
HIST 347	Global America: 1970-2000
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 410	Environmental History of the United States

### History Specialization

Select two additional Upper Division History courses selected from European, United States, World, or Topical History or ANTH 225 6

**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
<b>Total Semester Credit Hours</b>		<b>29</b>

## Suggested Course Plan

### First Year

Fall Semester		Semester Credit Hours
ENGL 111	English Composition I-GTC01	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
<b>Semester Credit Hours</b>		<b>13</b>

<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
Essential Learning - Fine Arts		3
Foundation Course - Foreign Language		3
Essential Learning - Social and Behavioral Science		3
History Elective		3
General Elective		3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>17</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
History Elective (2 courses)		6
General Elective (2 courses)		6
HIST 202	Introduction to Historical Research	3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
History Elective (2 courses)		6
General Elective		3
Upper Division General Elective		3
HIST 394	Junior Seminar in Historiography	3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Fourth Year</b>		
<b>Fall Semester</b>		
HIST 404	Senior Seminar in Historical Research	3
History Elective (2 courses)		6
Upper Division General Elective		3
General Elective		2
<b>Semester Credit Hours</b>		<b>14</b>
<b>Spring Semester</b>		
History Elective (4 courses)		12
General Elective		3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Total Semester Credit Hours</b>		<b>120</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his 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

## About This Major . . .

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)
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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>2</sup>		
MATH 110	Mathematical Investigations-GTMA1	3
<b>History</b>		
HIST 131	United States History I-GTHI1	3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
ECON 201	Principles of Macroeconomics-GTSS1	3
PSYC 233	Human Growth and Development-GTSS3 (Must receive grade of "B" or higher)	3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>3</sup>		
Select one Natural Sciences course		3
Select one Natural Sciences course with lab		4
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "B" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> Must receive a grade of "C" or better, must be completed by the time the student has 60 semester hours.

<sup>3</sup> 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
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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 <sup>1</sup>		6
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> FLAS 114 and FLAS 115 will not fulfill this requirement.

## 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
<b>Social Science Core</b>		
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	
<b>History Core</b>		
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
<b>History Electives</b>		
<i>European History</i>		
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	
<i>World History</i>		
Select two of the following:		3
HIST 310	Latin American Civilization	
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	
<b>United States History</b>		
Select three of the following:		9
HIST 305	The Old South	
HIST 315	American Indian 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 1950's and 1960's	
HIST 347	Global America: 1970-2000	
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
<b>Secondary Education Requirements</b> <sup>1,2</sup>		
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 497	Content Methodology Practicum (80 field experience hours)	3
EDUC 497B	Methods of Teaching Secondary Social Sciences <sup>3</sup>	2
EDUC 499G	Teaching Internship and Colloquia: Secondary (600 field experience hours)	12
Praxis II Exam Passed		
<b>Total Semester Credit Hours</b>		<b>77</b>

<sup>1</sup> Must earn a "B" or better in all EDUC courses.

<sup>2</sup> 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.

<sup>3</sup> 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

		Semester Credit Hours
<b>First Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>13</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>18</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
Foundation Course - Foreign Language		3
HIST 202	Introduction to Historical Research	3
PSYC 233	Human Growth and Development-GTSS3	3
POLS 101	American Government-GTSS1	3
or POLS 261		or Comparative Politics-GTSS1
ECON 201	Principles of Macroeconomics-GTSS1	3
EDUC 115	What It Means To Be An Educator	1
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
Foundation Course - Foreign Language		3
Essential Learning - Natural Science with Lab		4
History Elective (2 courses)		6
GEOG 103	World Regional Geography-GTSS2	3
<b>Semester Credit Hours</b>		<b>16</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>18</b>
<b>Spring Semester</b>		
EDUC 342	Pedagogy and Assessment: Secondary and K-12	3
EDUC 343	Teaching to Diversity	3
History Elective (2 courses)		6
<b>Semester Credit Hours</b>		<b>12</b>
<b>Fourth Year</b>		
<b>Fall Semester</b>		
EDUC 442	Integrating Literacy Across the Curriculum: Secondary and K-12 Art	3
EDUC 475	Classroom Management for K-12 Educators	1
EDUC 497	Content Methodology Practicum	3
EDUC 497B	Methods of Teaching Secondary Social Sciences	2

HIST 404	Senior Seminar in Historical Research	3
History Elective		3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
EDUC 499G	Teaching Internship and Colloquia: Secondary	12
<b>Semester Credit Hours</b>		<b>12</b>
<b>Total Semester Credit Hours</b>		<b>120</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## History (Minor)

Minor: History  
Program Code: M720

### About This Minor. . .

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
<b>Required Courses</b>		
HIST 101	Western Civilization I-GTH1	3
HIST 102	Western Civilization II-GTH1	3
HIST 131	United States History I-GTH1	3
HIST 132	United States History II-GTH1	3
<b>European History</b>		
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 315	American Indian 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 1950's and 1960's
HIST 347	Global America: 1970-2000
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 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 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 her/his 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 her/his responsibility to consult the Registrar's Office regarding next steps.

## Public History (Minor)

Minor: Public History  
Program Code: M721

### About This Minor. . .

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

(21 semester hours)

Code	Title	Semester Credit Hours
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 405	Introduction to Public History	3
HIST 409	Material Culture Studies	3
HIST 499	History Internship	3
<b>Total Semester Credit Hours</b>		<b>21</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 her/his 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 her/his responsibility to consult the Registrar's Office regarding next steps.

## Hospitality Management

### Program Description

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 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 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 2-year degree and then progress to a 4-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

Department of Business  
Dominguez Hall 301  
970.248.1778

## Programs of Study Associates

- [Hospitality Management \(AAS\)](#) (p. 440)

## Bachelors/Minors

- [Hospitality Management \(BAS\)](#) (p. 437)
- [Hospitality Management \(Minor\)](#) (p. 442)
- [Hospitality Management, Business Administration \(BBA\)](#) (p. 197)

## Hospitality Management (BAS)

Degree: Bachelor of Applied Science  
Major: Hospitality Management  
Program Code: 3163

## About This Major . . .

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 critical thinking, communication fluency, quantitative fluency, and specialized knowledge/applied learning. 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.
- 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 113	College Algebra-GTMA1 <sup>2</sup>	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>3</sup>		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

<sup>2</sup> This is a 4 credit course. 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.

<sup>3</sup> 7 semester hours, one course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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
<b>Business Courses</b>		
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
HMG 370	Managing Quality Service	3
HMG 410	Hospitality Facilities Management	3
HMG 450	Strategic Hospitality Sales and Marketing	3
HMG 470	Hospitality Management Strategies <sup>1</sup>	3
HRMA 371	Human Resource Management	3
MANG 201	Principles of Management	3
MANG 301	Organizational Behavior	3
MARK 231	Principles of Marketing	3
<b>Bachelor of Applied Science Core</b>		
36 semester hours taken as part of a state approved Associate of Applied Science degree <sup>1</sup>		36
<b>Total Semester Credit Hours</b>		<b>72</b>

<sup>1</sup> HMG 470 requires prerequisites HMG 101 and HMG 200 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. HMG 371 Events Management (3 credits) and MANG 499 Internship (3-6 credit hours) are recommended.

Code	Title	Semester Credit Hours
MATH 113	College Algebra-GTMA1	1
Select additional electives		10
<b>Total Semester Credit Hours</b>		<b>11</b>

## 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. 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		Semester
Fall Semester		Credit Hours
ACCT 201	Principles of Financial Accounting	3
CISB 241	Introduction to Business Analysis	3
HMG1 101	Travel Industry I	3
MANG 201	Principles of Management	3
MARK 231	Principles of Marketing	3
<b>Semester Credit Hours</b>		<b>15</b>
Spring Semester		
CISB 341	Quantitative Decision Making	3
FINA 301	Managerial Finance	3
HMG1 200	Management and Supervisory Skills for the Hospitality Industry (If needed)	3
MANG 301	Organizational Behavior	3
Upper Division Business/HMG1 Elective (3)		3
<b>Semester Credit Hours</b>		<b>15</b>
Fourth Year		
Fall Semester		
BUGB 349	Legal Environment of Business	3
HMG1 370	Managing Quality Service	3
HMG1 410	Hospitality Facilities Management	3
Upper Division Business/HMG1 Elective (3)		3
Upper Division Business/HMG1 Elective (3)		3
<b>Semester Credit Hours</b>		<b>15</b>
Spring Semester		
HRMA 371	Human Resource Management	3
HMG1 450	Strategic Hospitality Sales and Marketing	3
HMG1 470	Hospitality Management Strategies	3
Upper Division Business/HMG1 Elective (3)		3
Upper Division Business/HMG1 Elective (3)		3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Total Semester Credit Hours</b>		<b>60</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Hospitality Management (AAS)

Degree: Associate of Applied Science

Major: Hospitality Management

Program Code: 1163

## About This Major . . .

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/WCCC 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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, Hospitality 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
<b>Communication</b>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b>		
MATH 113	College Algebra-GTMA1	4
<b>Other Essential Learning Core Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>16</b>

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one KINA Activity course		1
<b>Total Semester Credit Hours</b>		<b>2</b>

## Program Specific Degree Requirements

(48 semester hours)

Code	Title	Semester Credit Hours
<b>Required Core Courses</b>		
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	
ECON 201	Principles of Macroeconomics-GTSS1	3
ECON 202	Principles of Microeconomics-GTSS1	3
MANG 201	Principles of Management	3
MARK 231	Principles of Marketing	3
HMGT 101	Travel Industry I	3
HMGT 200	Management and Supervisory Skills for the Hospitality Industry	3
or CUAR 255	Supervision in the Hospitality Industry	
Select 12 hours from the following restricted electives:		12
CUAR 115	Introduction to Sustainable Cuisine	
CUAR 179	Wines, Spirits and Beers	
CUAR 190	Dining Room Management	
CUAR 261	Cost Controls	
CUAR 262	Purchasing for the Hospitality Industry	
MANG 299	Internship	
<b>Total Semester Credit Hours</b>		<b>48</b>

## 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	Business Information Technology	3
or CISB 205	or Advanced Business Software	
HMGT 101	Travel Industry I	3
<b>Semester Credit Hours</b>		<b>15</b>

Spring Semester		
ENGL 112	English Composition II-GTCO2	3
CISB 241 or STAT 241	Introduction to Business Analysis or Introduction to Business Analysis	3
HMG2 200 or CUAR 255	Management and Supervisory Skills for the Hospitality Industry or Supervision in the Hospitality Industry	3
Essential Learning - Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
Essential Learning - Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
<b>Semester Credit Hours</b>		<b>15</b>
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 211	Business Communications	3
Restricted Elective		3
Restricted Elective		3
<b>Semester Credit Hours</b>		<b>18</b>
Spring Semester		
ACCT 202	Principles of Managerial Accounting	3
ECON 202	Principles of Microeconomics-GTSS1	3
MARK 231	Principles of Marketing	3
BUGB 231	Survey of Business Law	3
Restricted Elective		3
Restricted Elective		3
<b>Semester Credit Hours</b>		<b>18</b>
<b>Total Semester Credit Hours</b>		<b>66</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Hospitality Management (Minor)

Minor: Hospitality Management  
Program Code: M141

### About This Minor . . .

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
HMG 101	Travel Industry I	3
HMG 200	Management and Supervisory Skills for the Hospitality Industry	3
HMG 370	Managing Quality Service	3
HMG 450	Strategic Hospitality Sales and Marketing	3
Select 12 semester hours from the following:		12
HMG 350	Private and Commercial Recreation Systems	
HMG 352	Public Recreation Systems	
HMG 371	Events Management	
HMG 410	Hospitality Facilities Management	
HMG 470	Hospitality Management Strategies	
HMG 299	Internship	
HMG 499	Internship	
Additional courses may qualify in the elective category with permission of advisor		
<b>Total Semester Credit Hours</b>		<b>24</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 her/his 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 methods to study society and the natural world, the humanities tend to use analytical 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 Art, 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. 443)

## Humanities, Liberal Arts (AA)

Degree: Associate of Arts  
Major: Liberal Arts  
Emphasis: Humanities  
Program Code: 2230

### About This Major . . .

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/WCCC 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 110	Mathematical Investigations-GTMA1	3

<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>2</sup>		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> One course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Total Semester Credit Hours</b>		<b>2</b>

## 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: <sup>1</sup>		
	Art	27
	Dance	
	English	
	Graphic Art	
	Foreign Languages	
	Literature	
	Mass Communication	
	Music	
	Philosophy	
	Speech	
	Theater	
<b>Total Semester Credit Hours</b>		<b>27</b>

<sup>1</sup> No double counting is allowed between Essential Learning and major requirements.

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
ENGL 111	English Composition I-GTC01	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
<b>Semester Credit Hours</b>		<b>17</b>
Spring Semester		
ENGL 112	English Composition II-GTC02	3
Essential Learning - Fine Arts		3
Essential Learning - Mathematics		3
Humanities Emphasis Requirement		3
Humanities Emphasis Requirement		3
Wellness Requirement - KINA Activities Course		1
<b>Semester Credit Hours</b>		<b>16</b>
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
<b>Semester Credit Hours</b>		<b>15</b>
Spring Semester		
Essential Learning - Social and Behavioral Sciences		3
Humanities Emphasis Requirement		3
Humanities Emphasis Requirement		3
Humanities Emphasis Requirement		3
<b>Semester Credit Hours</b>		<b>12</b>
<b>Total Semester Credit Hours</b>		<b>60</b>

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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Information and Communication Technology Program Description

The Information and Communication Technology program will prepare you for a variety of specializations within the rapidly evolving Information and Communications Technology career field. The core of the program is the Cisco CCNA Networking series of classes. These classes are the best path to achieving a Cisco Certified Network Associate certification. In addition, the program emphasizes technologies that the entry-level employee will encounter: network hardware and software; business-class computer hardware and software; convergent data/voice/media communication hardware and software; internet of things hardware and software; 3D printing hardware and software; UAS (drones) and robotics (land drones) hardware; and software and management.

Curriculum is accredited, approved and aligned with national and international certifications by major business and industry in the computing, networking and ICT career fields.

Program Strengths:

- Modern labs using current technology, equipment and software
- Coursework aligned with national and international industry certifications including Cisco, A+/N+, CET, and Convergence Technology Professional (CTP)
- Hands-on application-based curriculum

## Contact Information

Office of Student Services  
WCCC, Bishop B102  
2508 Blichmann Avenue  
970.255.2670

## Programs of Study Associates

- [Information and Communication Technology \(AAS\)](#) (p. 446)

## Certificates

- [Computer Repair, Information and Communication Technology \(Technical Certificate\)](#) (p. 448)
- [Healthcare Information Networking, Information and Communication Technology \(Technical Certificate\)](#) (p. 449)
- [Help Desk Technician, Information and Communication Technology \(Technical Certificate\)](#) (p. 451)
- [Network Technician, Information and Communication Technology \(Technical Certificate\)](#) (p. 452)

## Information and Communication Technology (AAS)

Degree: Associate of Applied Science  
Major: Information and Communication Technology  
Program Code: 1318

### About This Major . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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:

- 60 semester hours total for the AAS Information and Communication 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
<b>Communication</b>		
ENGL 111	English Composition I-GTCO1	3
Select one of the following courses:		
ENGL 112	English Composition II-GTCO2	3
SPCH 101	Interpersonal Communications	
SPCH 102	Speechmaking	
<b>Mathematics</b>		
MATH 110	Mathematical Investigations-GTMA1	3
<b>Other Essential Learning Core Courses</b>		
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		
<b>Total Semester Credit Hours</b>		<b>15</b>

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity Course		
<b>Total Semester Credit Hours</b>		<b>2</b>

## Program Specific Degree Requirements

(43 semester hours, each course must be completed with a grade of "C" or higher.)

Code	Title	Semester Credit Hours
ABUS 257	Managing Office Technology I	3
CSCI 110	Beginning Programming	3
TECI 120	A+ Certification Preparation	3
TECI 131	Principles of Information Assurance	3
TECI 132	Introduction to IT Hardware and System Software	3
TECI 142	Internet of Things	3
TECI 180	Cisco Networking I	3
TECI 185	Cisco Networking II	3
TECI 201	Linux Configuration (OS)	3
TECI 202	Unix/Linux Server Administration	3
TECI 211	Windows Configuration (OS)	3
TECI 230	Cisco Networking III	3
TECI 242	Cloud Computing	3
TECI 270	Cisco Certified Network Associate, Security	4
<b>Total Semester Credit Hours</b>		<b>43</b>

## Suggested Course Plan

First Year		Semester Credit Hours
<b>Fall Semester</b>		
ABUS 257	Managing Office Technology I	3
KINE 100	Health and Wellness	1
MATH 110	Mathematical Investigations-GTMA1	3
TECI 132	Introduction to IT Hardware and System Software	3
TECI 180	Cisco Networking I	3
<b>Semester Credit Hours</b>		<b>13</b>
<b>Spring Semester</b>		
CSCI 110	Beginning Programming	3
ENGL 111	English Composition I-GTCO1	3
TECI 142	Internet of Things	3
TECI 185	Cisco Networking II	3
Essential Learning - Social and Behavioral Sciences, Natural Sciences, Fine Arts or Humanities course		3
Select one KINA Activity course		1
<b>Semester Credit Hours</b>		<b>16</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
Select one of the following:		
ENGL 112	English Composition II-GTCO2	3
SPCH 101	Interpersonal Communications	
SPCH 102	Speechmaking	
TECI 131	Principles of Information Assurance	3
TECI 120	A+ Certification Preparation	3
TECI 201	Linux Configuration (OS)	3
TECI 230	Cisco Networking III	3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
TECI 202	Unix/Linux Server Administration	3
TECI 211	Windows Configuration (OS)	3
TECI 242	Cloud Computing	3
TECI 270	Cisco Certified Network Associate, Security	4
Essential Learning - Social and Behavioral Sciences, Natural Sciences, Fine Arts or Humanities course		3
<b>Semester Credit Hours</b>		<b>16</b>
<b>Total Semester Credit Hours</b>		<b>60</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Computer Repair, Information and Communication Technology (Technical Certificate)

Award: Technical Certificate

Program of Study: Information and Communication Technology

Specialization: Computer Repair

Program Code: 1144

### About This Program . . .

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 [WCCC's Programs of Study page](#).

All CMU/WCCC 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. 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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:

- 18 semester hours required for Technical Certificate in Information and Communication Technology: Computer Repair.

## Program Specific Certificate Requirements

(18 semester hours)

Code	Title	Semester Credit Hours
<b>Required Courses</b>		
ABUS 128	Workplace Behavior	3
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
TECI 211	Windows Configuration (OS)	3
<b>Total Semester Credit Hours</b>		<b>18</b>

## Suggested Course Plan

First Year

Fall Semester

		Semester Credit Hours
ABUS 128	Workplace Behavior	3
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
TECI 211	Windows Configuration (OS)	3
<b>Semester Credit Hours</b>		<b>18</b>
<b>Total Semester Credit Hours</b>		<b>18</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## 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

## About This Program . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Required Courses</b>		
ABUS 128	Workplace Behavior	3
ABUS 160	Introduction to Customer Service	3
TECI 111	Healthcare Data Management and Information Systems	3
TECI 131	Principles of Information Assurance	3
TECI 132	Introduction to IT Hardware and System Software	3
TECI 142	Internet of Things	3
TECI 180	Cisco Networking I	3
TECI 185	Cisco Networking II	3
TECI 230	Cisco Networking III	3
TECI 242	Cloud Computing	3
<b>Total Semester Credit Hours</b>		<b>30</b>

## Suggested Course Plan

First Year		Semester Credit Hours
<b>Fall Semester</b>		
TECI 111	Healthcare Data Management and Information Systems	3
TECI 131	Principles of Information Assurance	3
TECI 132	Introduction to IT Hardware and System Software	3
TECI 180	Cisco Networking I	3
<b>Semester Credit Hours</b>		<b>12</b>
<b>Spring Semester</b>		
ABUS 128	Workplace Behavior	3
ABUS 160	Introduction to Customer Service	3
TECI 142	Internet of Things	3
TECI 185	Cisco Networking II	3
<b>Semester Credit Hours</b>		<b>12</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
TECI 230	Cisco Networking III	3
TECI 242	Cloud Computing	3
<b>Semester Credit Hours</b>		<b>6</b>
<b>Total Semester Credit Hours</b>		<b>30</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## 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

### About This Program . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. Identify best practice information security policies. (Specialized knowledge, Critical thinking)
2. Describe the use of Convergent Technologies in a computer network. (Specialized knowledge)
3. Demonstrate proficiency and knowledge required for basic use of computer hardware, software, and the Internet. (Specialized knowledge)
4. Ability to install, configure and provide instruction on basics of using common office software tools. (Specialized knowledge, Critical Thinking)
5. Ability to identify, manage and overcome barriers to 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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

(24 semester hours, must earn a grade of "C" or better in each course.)

Code	Title	Semester Credit Hours
<b>Required Courses</b>		
ABUS 128	Workplace Behavior	3
TECI 120	A+ Certification Preparation	3
TECI 131	Principles of Information Assurance	3
TECI 132	Introduction to IT Hardware and System Software	3
ABUS 160	Introduction to Customer Service	3
TECI 142	Internet of Things	3
TECI 180	Cisco Networking I	3
ABUS 257	Managing Office Technology I	3
<b>Total Semester Credit Hours</b>		<b>24</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
ABUS 128	Workplace Behavior	3
TECI 131	Principles of Information Assurance	3
TECI 132	Introduction to IT Hardware and System Software	3

TECI 142	Internet of Things	3
<b>Semester Credit Hours</b>		<b>12</b>
<b>Spring Semester</b>		
ABUS 160	Introduction to Customer Service	3
ABUS 257	Managing Office Technology I	3
TECI 120	A+ Certification Preparation	3
TECI 180	Cisco Networking I	3
<b>Semester Credit Hours</b>		<b>12</b>
<b>Total Semester Credit Hours</b>		<b>24</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Network Technician, Information and Communication Technology (Technical Certificate)

Award: Technical Certificate  
 Program of Study: Information and Communication Technology  
 Specialization: Network Technician  
 Program Code: 1118

## About This Program . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. 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 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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, must earn a grade of "C" or better in each course.)

Code	Title	Semester Credit Hours
<b>Required Courses</b>		
ABUS 128	Workplace Behavior	3
ABUS 160	Introduction to Customer Service	3
ABUS 257	Managing Office Technology I	3
MATH 108	Technical Mathematics	4
TECI 131	Principles of Information Assurance	3
TECI 132	Introduction to IT Hardware and System Software	3
TECI 142	Internet of Things	3
TECI 180	Cisco Networking I	3
TECI 185	Cisco Networking II	3
TECI 230	Cisco Networking III	3
<b>Total Semester Credit Hours</b>		<b>31</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
MATH 108	Technical Mathematics	4
TECI 131	Principles of Information Assurance	3
TECI 132	Introduction to IT Hardware and System Software	3
TECI 180	Cisco Networking I	3
<b>Semester Credit Hours</b>		<b>13</b>
Spring Semester		
ABUS 128	Workplace Behavior	3
ABUS 160	Introduction to Customer Service	3
ABUS 257	Managing Office Technology I	3
TECI 142	Internet of Things	3
TECI 185	Cisco Networking II	3
<b>Semester Credit Hours</b>		<b>15</b>

### Second Year Fall Semester

TECI 230	Cisco Networking III	3
<b>Semester Credit Hours</b>		<b>3</b>
<b>Total Semester Credit Hours</b>		<b>31</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Innovation

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 \(PCT\)](#) (p. 454)

### Innovation (PCT)

Award: Professional Certificate  
Program of Study: Innovation  
Program Code: 1701

### About This Program. . .

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 critical thinking, communication fluency, quantitative fluency, and specialized knowledge/applied learning. 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
<b>Total Semester Credit Hours</b>		<b>9</b>

### Suggested Course Plan

Second Year		Semester Credit Hours
Fall Semester		
INOV 310	The Process of Innovation	3
INOV 320	Innovation Launch	3
<b>Semester Credit Hours</b>		<b>6</b>
Spring Semester		
INOV 450	Innovation Garage	3
<b>Semester Credit Hours</b>		<b>3</b>
<b>Total Semester Credit Hours</b>		<b>9</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If your petition for graduation is denied, it will be your responsibility to apply for graduation in a subsequent semester. Your "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

Lowell Heiny Hall 413  
970.248.1696

## Programs of Study

### Bachelors/Minors

- [International Studies \(Minor\)](#) (p. 455)

## International Studies (Minor)

Minor: International Studies

Program Code: M753

### About This Minor. . .

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)

- 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
<b>First Semester of a Second-Year Language</b>		
FLA_ 211	Second Year (Language) I	3
INTS 101	Introduction to International Studies	3
<b>Business</b>		
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	
<b>History</b>		
Select one of the following:		3
HIST 102	Western Civilization II-GTH11	
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	
<b>Language and Literature</b>		
Select one of the following:		3
ENGL 231	Non-Western World Literature I-GTAH2	
ENGL 232	Non-Western World Literature II-GTAH2	
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	
<b>Natural Science and Mathematics</b>		
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-GT-SC2	
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	
<b>Social and Behavioral Science</b>		
Select one of the following:		3
GEOG 103	World Regional Geography-GTSS2	
POLS 261	Comparative Politics-GTSS1	
POLS 270	World Politics	
POLS 366	Government and Politics of Asia	
POLS 372	Peace and Conflict Studies	
POLS 373	Global Politics of Women and Gender	
POLS 471	Politics of Global Governance	
POLS 472	International Political Economy	
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**

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 her/his responsibility to consult the Registrar's Office regarding next steps.

## Jazz Studies

(See [Music](#) (p. 549))

## 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; physical therapist<sup>1</sup>; and occupational therapist<sup>1</sup>.

<sup>1</sup> Career requires additional post-baccalaureate studies.

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.

## Contact Information

Department of Kinesiology  
Maverick Center 237B  
970.248.1635

## Programs of Study Bachelors/Minors

- [Adapted Physical Education, Kinesiology \(BA\)](#) (p. 457)
- [Education: K-12 Education, Kinesiology \(BA\)](#) (p. 460)

## Certificates

- [Personal Training \(Professional Certificate\)](#) (p. 464)

## Adapted Physical Education, Kinesiology (BA)

Degree: Bachelor of Arts  
Major: Kinesiology  
Concentration: Adapted Physical Education  
Program Code: 3132

## About This Major . . .

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<sup>1</sup>; occupational therapist<sup>1</sup>. Colorado Mesa students frequently continue their study towards graduate or professional degrees at other universities.

<sup>1</sup> 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)
2. Apply motor development theory and principles related to skillful movement, physical activity, and fitness. (Communication Fluency, 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. Develop developmentally appropriate learning experiences that address the diverse needs of all individuals. (Applied Learning)
5. Use a variety of assessments and feedback procedures to foster student learning. (Applied Learning, 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.

## 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTC01	3
ENGL 112	English Composition II-GTC02	3
<b>Mathematics</b> <sup>1</sup>		
MATH 110	Mathematical Investigations-GTMA1	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course <sup>2</sup>		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>3</sup>		
Select one Natural Sciences course with a lab		4
Select one Natural Sciences course		3
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> Suggested: PSYC 150, General Psychology (3).

<sup>3</sup> One course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>7</b>

<sup>1</sup> 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

(4-7 semester hours)

Code	Title	Semester Credit Hours
BIOL 209	Human Anatomy and Physiology	3
BIOL 209L	Human Anatomy and Physiology Laboratory	1
Student must have a current CPR card or take one of the following:		0-3
KINE 250	Lifeguard Training	

KINE 265	Emergency Care	
<b>Total Semester Credit Hours</b>		<b>4-7</b>

## Program Specific Degree Requirements

(48 semester hours)

Code	Title	Semester Credit Hours
<b>Required Core Courses</b>		
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/Administration/Legal Considerations in Physical Education and Sports	3
KINE 494	Kinesiology Senior Seminar	1
<b>Required Concentration Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>42</b>

Code	Title	Semester Credit Hours
<b>Restricted Electives</b>		
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	
<b>Total Semester Credit Hours</b>		<b>6</b>

## General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total hours to 120 hours. 27-30 hours, up to 7 hours of upper division electives may be required.

Code	Title	Semester Credit Hours
Select electives		27-30
<b>Total Semester Credit Hours</b>		<b>27-30</b>

## Suggested Course Plan

First Year	Semester Credit Hours	
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
ENGL 112	English Composition II-GTCO2	3
BIOL 209	Human Anatomy and Physiology	3
BIOL 209L	Human Anatomy and Physiology 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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
KINA Activity		1
KINE 211	Methods of Lifetime, Individual, and Dual Activities	3
Essential Learning - Natural Science with Lab		4
Essential Learning - Social and Behavioral Science <sup>1</sup>		3
General Electives		6
<b>Semester Credit Hours</b>		<b>17</b>
<b>Spring Semester</b>		
Essential Learning - History		3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
KINA Activity		1
KINE 251	Water Safety Instructor Course	3
KINE 250	Lifeguard Training	3
or KINE 265	or Emergency Care	
<b>Semester Credit Hours</b>		<b>14</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
KINE 309	Anatomical Kinesiology	3
KINE 360	Motor Learning	3
KINE 303	Physiology of Exercise	3
KINE 303L	Physiology of Exercise Laboratory	1
KINE 420	Therapeutic Interventions	3
General Electives		3
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
KINE 301	Health and Fitness Assessment	3
KINE 415	Physical Activity and Aging	3
KINE 480	Inclusive Physical Activity	3
General Electives		6
<b>Semester Credit Hours</b>		<b>15</b>
<b>Fourth Year</b>		
<b>Fall Semester</b>		
PSYC 340	Abnormal Psychology	3

KINE 401	Organization/Administration/Legal Considerations in Physical Education and Sports	3
Restricted Elective - FLSS, PSYC, or KINE option		3
General Elective		3
<b>Semester Credit Hours</b>		<b>12</b>
<b>Spring Semester</b>		
KINE 494	Kinesiology Senior Seminar	1
KINE 499	Internship	6
Restricted Elective - FLSS, PSYC, or KINE option		3
General Electives (if needed)		4
<b>Semester Credit Hours</b>		<b>14</b>
<b>Total Semester Credit Hours</b>		<b>120</b>

<sup>1</sup> 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 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his 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

## About This Major . . .

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 <sup>1</sup>	3
ENGL 112	English Composition II-GTCO2 <sup>1</sup>	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

<sup>1</sup> 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)
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)
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)

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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>2</sup>		
MATH 110	Mathematical Investigations-GTMA1	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
PSYC 233	Human Growth and Development-GTSS3 <sup>3</sup>	3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>4</sup>		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "B" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> Must receive a grade of "C" or better, must be completed by the time the student has 60 semester hours.

<sup>3</sup> Must receive a grade of "B" or better.

<sup>4</sup> One course must include a lab.

## Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

**To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options."** This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option 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

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity Course <sup>1</sup>		1
Select one Activity Course <sup>1</sup>		1
<b>Essential Learning Capstone <sup>2</sup></b>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>7</b>

<sup>1</sup> KINA 101/ KINA 102 are recommended for students with limited swimming skills.

<sup>2</sup> 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	3
BIOL 209L	Human Anatomy and Physiology Laboratory	1
KINE 265	Emergency Care	3
<b>Total Semester Credit Hours</b>		<b>7</b>

## 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
<b>Required Core Courses</b>		
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 401	Organization/Administration/Legal Considerations in Physical Education and Sports	3
KINE 494	Kinesiology Senior Seminar	1
<b>Required Concentration Courses</b>		
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) <sup>2</sup>	3

### K-12 Licensure Requirements <sup>1</sup>

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**

<sup>1</sup> 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.

<sup>2</sup> 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
<b>Total Semester Credit Hours</b>		<b>5</b>

Code	Title	Semester Credit Hours
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### 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		Semester Credit Hours
Fall Semester		
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
<b>Semester Credit Hours</b>		<b>16</b>
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 and Human Anatomy and Physiology Laboratory	4
MATH 110	Mathematical Investigations-GTMA1	3
Essential Learning - Humanities		3
EDUC 115	What It Means To Be An Educator	1
<b>Semester Credit Hours</b>		<b>17</b>
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
<b>Semester Credit Hours</b>		<b>16</b>
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
<b>Semester Credit Hours</b>		<b>15-16</b>
Third Year		
Fall Semester		
KINE 309	Anatomical Kinesiology	3
KINE 360	Motor Learning	3
KINE 480	Inclusive Physical Activity	3
KINE 401	Organization/Administration/Legal Considerations in Physical Education and Sports	3
General Elective		3
<b>Semester Credit Hours</b>		<b>15</b>
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
<b>Semester Credit Hours</b>		<b>14-17</b>
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 494	Kinesiology Senior Seminar	1
KINE 497	Pre-Internship in Physical Education	3
Elective (if needed)		0-3
<b>Semester Credit Hours</b>		<b>13-16</b>
Spring Semester		
EDUC 499D	Teaching Internship and Colloquia: Elementary for K-12	6
EDUC 499H	Teaching Internship and Colloquia: Secondary for K-12	6
<b>Semester Credit Hours</b>		<b>12</b>
<b>Total Semester Credit Hours</b>		<b>118-125</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.



If a student's petition for graduation is denied, it will be her/his 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

### About This Program . . .

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)<sup>1</sup>
  - National Strength and Conditioning Association Certified Personal Trainer (NSCA-CPT)
  - National Strength and Conditioning Association Certified Strength and Conditioning Specialist (NSCA-CSCS)<sup>1</sup>

<sup>1</sup> 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 critical thinking, communication fluency, quantitative fluency, and specialized knowledge/applied learning. 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)<sup>1</sup>
- National Strength and Conditioning Association Certified Personal Trainer (NSCA-CPT)
- National Strength and Conditioning Association Certified Strength and Conditioning Specialist (NSCA-CSCS)<sup>1</sup>

<sup>1</sup> 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	3
BIOL 209L	Human Anatomy and Physiology 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 or KINE 404	Advanced Strength and Conditioning Clinical Exercise Physiology and Advanced Exercise Prescription	3
KINE 405	Sports Nutrition	3
<b>Total Semester Credit Hours</b>		<b>33</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If your petition for graduation is denied, it will be your responsibility to apply for graduation in a subsequent semester. Your "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 on-line 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

Office of Student Services  
WCCC, Bishop B102  
2508 Blichmann Avenue  
970.255.2670

## Programs of Study Associates

- [Land Surveying and Geomatics \(AAS\)](#) (p. 466)

## Certificates

- [Land Surveying and Geomatics \(Technical Certificate\)](#) (p. 468)

## Land Surveying and Geomatics (AAS)

Degree: Associate of Applied Science  
Program of Study: Land Surveying and Geomatics  
Program Code: 1334

## About This Major . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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)
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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Communication</b>		
ENGL 111	English Composition I-GTCO1	3
Select one of the following:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communications	
SPCH 102	Speechmaking	
<b>Mathematics</b>		
MATH 130	Trigonometry	3
<b>Other Essential Learning Core Courses</b>		
PHYS 111	General Physics-GTSC1	4
PHYS 111L	General Physics Laboratory-GTSC1	1
Select one Social and Behavioral Sciences, Natural Sciences, Fine Arts or Humanities course		3
<b>Total Semester Credit Hours</b>		<b>17</b>

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
KINA 1XX	Activity Course	1
<b>Total Semester Credit Hours</b>		<b>2</b>

## 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	Introduction to Geographic Information Systems	2
GIST 332L	Introduction to Geographic Information Systems Laboratory	1
MATH 141 or MATH 121	Analytical Geometry Calculus for Business	3
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
<b>Total Semester Credit Hours</b>		<b>42</b>

## Suggested Course Plan

First Year		Semester Credit Hours
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
CADT 106	Computer Aided Design	3
Complete one of the following:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communications	
SPCH 102	Speechmaking	
MATH 141 or MATH 121	Analytical Geometry or Calculus for Business	3
STAT 200	Probability and Statistics-GTMA1	3
SURV 203	Legal Aspects of Surveying	3
SURV 204	Real Property Descriptions	2
<b>Semester Credit Hours</b>		<b>17</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
CADT 130	CAD-Civil	3
Select one KINA Activity course		1
PHYS 111	General Physics-GTSC1	4
PHYS 111L	General Physics Laboratory-GTSC1	1
SURV 206	Property Law - Boundary Evidence	3
SURV 207	Surveying Ethics: An Overview of Ethical Expectations	2
<b>Semester Credit Hours</b>		<b>14</b>

Spring Semester		
GIST 332 & 332L	Introduction to Geographic Information Systems and Introduction to Geographic Information Systems Laboratory	3
Essential Learning - Social and Behavioral Sciences, Natural Sciences, Fine Arts or Humanities course		3
KINE 100	Health and Wellness	1
SURV 200	Advanced Surveying Field Work	3
SURV 205	Advanced Surveying Computations/Calculations	4
<b>Semester Credit Hours</b>		<b>14</b>
<b>Total Semester Credit Hours</b>		<b>61</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Land Surveying and Geomatics (Technical Certificate)

Award: Technical Certificate  
 Program of Study: Land Surveying and Geomatics  
 Program Code: 1122

## About This Program . . .

WCCC/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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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 130	Trigonometry	3
Complete one of the following courses:		3-5
MATH 141	Analytical Geometry	
MATH 121	Calculus for Business	
MATH 135	Engineering Calculus I	
MATH 146	Calculus for Biological Sciences	
MATH 151	Calculus I-GT-MA1	
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
<b>Total Semester Credit Hours</b>		<b>37-39</b>

## Suggested Course Plan

For Post Baccalaureate Certificate students working full time:

First Year		Semester Credit Hours
Fall Semester		
MATH 130	Trigonometry	3
SURV 203	Legal Aspects of Surveying	3
SURV 204	Real Property Descriptions	2
<b>Semester Credit Hours</b>		<b>8</b>
Spring Semester		
SURV 100	Introduction to Surveying/Field Work	3
SURV 102	Surveying Calculations I	4
<b>Semester Credit Hours</b>		<b>7</b>
Summer Semester		
SURV 207	Surveying Ethics: An Overview of Ethical Expectations	2
<b>Semester Credit Hours</b>		<b>2</b>
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
<b>Semester Credit Hours</b>		<b>10</b>
Spring Semester		
Complete one of the following courses:		3-5
MATH 141	Analytical Geometry	

MATH 121	Calculus for Business	
MATH 135	Engineering Calculus I	
MATH 146	Calculus for Biological Sciences	
MATH 151	Calculus I-GTMA1	
SURV 206	Property Law - Boundary Evidence	3
<b>Semester Credit Hours</b>		<b>6-8</b>
<b>Summer Semester</b>		
SURV 298	Internship/Capstone Project	4
<b>Semester Credit Hours</b>		<b>4</b>
<b>Total Semester Credit Hours</b>		<b>37-39</b>

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		Semester Credit Hours
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Summer Semester</b>		
SURV 207	Surveying Ethics: An Overview of Ethical Expectations	2
<b>Semester Credit Hours</b>		<b>2</b>
<b>Fall Semester</b>		
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 146	Calculus for Biological Sciences	
MATH 151	Calculus I-GTMA1	
<b>Semester Credit Hours</b>		<b>15-17</b>
<b>Second Year</b>		
<b>Spring Semester</b>		
SURV 298	Internship/Capstone Project	4
<b>Semester Credit Hours</b>		<b>4</b>
<b>Total Semester Credit Hours</b>		<b>37-39</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## 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. 172)
- [Business Administration, Liberal Arts \(AA\)](#) (p. 215)
- [Business Computer Information Systems, Liberal Arts \(AA\)](#) (p. 240)
- [Computer Science, Liberal Arts \(AS\)](#) (p. 249)
- [Education: Early Childhood Education, Liberal Arts \(AA\)](#) (p. 305)
- [Geology, Liberal Arts \(AS\)](#) (p. 410)
- [Humanities, Liberal Arts \(AA\)](#) (p. 443)
- [Mathematics, Liberal Arts \(AS\)](#) (p. 527)
- [Physics, Liberal Arts \(AS\)](#) (p. 623)
- [Social Science, Liberal Arts \(AA\)](#) (p. 651)
- [Sports Management, Liberal Arts \(AS\)](#) (p. 673)
- [University Studies, Liberal Arts \(AA\)](#) (p. 486)

## Bachelors/Minors

- [Education: Elementary Education, English, Liberal Arts \(BA\)](#) (p. 471)
- [Education: Elementary Education, Mathematics, Liberal Arts \(BA\)](#) (p. 475)
- [Education: Elementary Education, Social Science, Liberal Arts \(BA\)](#) (p. 478)
- [General Studies, Liberal Arts \(BA\)](#) (p. 482)
- [Interdisciplinary Studies, Liberal Arts \(BAS\)](#) (p. 484)

## Education: Elementary Education, English, Liberal Arts (BA)

Degree: Bachelor of Arts  
Major: Liberal Arts, Elementary Education  
Concentration: English  
Program Code: 3291

## About This Major . . .

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)
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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1,2</sup>		
MATH 205	Elements of Mathematics II-GTMA1	3
<b>History</b>		
Select one History course <sup>3</sup>		3
<b>Humanities</b>		
Select one Humanities Course <sup>4</sup>		3
<b>Social and Behavioral Sciences</b>		
PSYC 233	Human Growth and Development-GTSS3	3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>5</sup>		
Select one BIOL course		3
Select corresponding BIOL lab		1
Select one GEOL course		3
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "B" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> Must be taken after MATH 105.

<sup>3</sup> HIST 131 or HIST 132 recommended.

<sup>4</sup> ENGL or HIST course recommended.

<sup>5</sup> 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
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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
<b>Literacy and Mathematics</b>		
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
<b>Kinesiology</b>		
KINE 321	Physical Activity and Health in the Classroom	3
<b>Social Sciences</b>		
POLS 101	American Government-GTSS1	3
Select two of the following:		6
ANTH 202	Introduction to Anthropology-GTSS3	
ANTH 220	Principles of Archaeology or ANTH 225North 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	
HIST 315	American Indian 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 103World Regional Geography-GTSS2	
<b>Science</b>		
Select two Natural Science courses from approved Essential Learning list or BIOL 209 or BIOL 210		6
<b>Art</b>		
ARTD 410	Elementary Art Education Methods	3

### Elementary Education Concentration: English

<i>English Content Area Required Courses</i>		
ENGL 210	Introduction to Literary Studies	3
ENGL 245	Imaginative Writing	3
or ENGL 250	Introduction to Creative Writing	
<i>Upper Division Literature Electives</i>		
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	
<i>Upper Division English Elective</i>		
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
<b>Elementary Education Requirements <sup>1</sup></b>		
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		
<b>Total Semester Credit Hours</b>		<b>38</b>

<sup>1</sup> 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		Semester Credit Hours
Fall Semester		
ENGL 111	English Composition I-GTC01	3
POLS 101	American Government-GTSS1	3
KINA Activity		1
Essential Learning - Fine Arts		3
Essential Learning - Geology		3
Essential Learning - History		3
<b>Semester Credit Hours</b>		<b>16</b>
Spring Semester		
ENGL 112	English Composition II-GTC02	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
<b>Semester Credit Hours</b>		<b>17</b>
Second Year		
Fall Semester		
PSYC 233	Human Growth and Development-GTSS3	3
MATH 205	Elements of Mathematics II-GTMA1	3
ENGL 245 or ENGL 250	Imaginative Writing or Introduction to Creative Writing	3
Essential Learning - Biology		3
Essential Learning - Biology Lab		1
Elementary Core - Social Sciences		3
<b>Semester Credit Hours</b>		<b>16</b>
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
<b>Semester Credit Hours</b>		<b>17</b>

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
<b>Semester Credit Hours</b>		<b>18</b>
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
<b>Semester Credit Hours</b>		<b>16</b>
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
<b>Semester Credit Hours</b>		<b>14</b>
Spring Semester		
EDUC 499C	Teaching Internship and Colloquia: Elementary	12
<b>Semester Credit Hours</b>		<b>12</b>
<b>Total Semester Credit Hours</b>		<b>126</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his 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

### About This Major . . .

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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1,2</sup>		
MATH 205	Elements of Mathematics II-GTMA1	3
<b>History</b>		
Select one History course <sup>3</sup>		3
<b>Humanities</b>		
Select one Humanities Course <sup>4</sup>		3

<b>Social and Behavioral Sciences</b>		
PSYC 233	Human Growth and Development-GTSS3	3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>5</sup>		
Select one BIOL course		3
Select corresponding BIOL lab		1
Select one GEOL course		3
<b>Total Semester Credit Hours</b>		<b>31</b>

- <sup>1</sup> Must receive a grade of "B" or better and must be completed by the time the student has 60 semester hours.
- <sup>2</sup> Must be taken after MATH 105.
- <sup>3</sup> HIST 131 or HIST 132 recommended.
- <sup>4</sup> ENGL or HIST course recommended.
- <sup>5</sup> 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
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

- <sup>1</sup> 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
<b>Literacy and Mathematics</b>		
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 <sup>1</sup>	3
MATH 301	Mathematics for Elementary Teachers	3

**Kinesiology**

KINE 321	Physical Activity and Health in the Classroom	3
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**Social Sciences**

POLS 101	American Government-GTSS1	3
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Select two of the following: 6

ANTH 202	Introduction to Anthropology-GTSS3	
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ANTH 220	Principles of Archaeology or ANTH 225 North American Archaeology	
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ECON 201	Principles of Macroeconomics-GTSS1	
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HIST 101	Western Civilization I-GTHI1	
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HIST 102	Western Civilization II-GTHI1	
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HIST 131	United States History I-GTHI1	
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HIST 132	United States History II-GTHI1	
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HIST 225	History of Colorado	
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HIST 315	American Indian History	
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HIST 316	American Slavery	
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HIST 320	The American West	
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HIST 331	The 20th Century	
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HIST 344	The Age of Industry in America	
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HIST 345	History of Immigration, Race, and Ethnicity in America	
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GEOG 102	Human Geography-GTSS2 or GEOG 103 World Regional Geography-GTSS2	
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**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
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**Elementary Education Concentration: Mathematics***Math Content Area Required Courses*

STAT 200	Probability and Statistics-GTMA1	3
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CSCI 305	Technology for Mathematics Educators	3
or CSCI 110	Beginning Programming	

MATH 131	Applied Calculus <sup>2</sup>	4
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MATH 389	Explorations in Mathematics for Elementary Educators	2
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*Concentration Elective*

Select one of the following: 3

MATH 225	Computational Linear Algebra	
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MATH 305	Discovering Geometry	
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MATH 340	Ethnomathematics	
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MATH 369	Discrete Structures I	
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STAT 301	Computational Statistics	
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**Total Semester Credit Hours 51**

Code	Title	Semester Credit Hours
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**Elementary Education Requirements<sup>3,4,5</sup>**

EDUC 115	What It Means To Be An Educator	1
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EDUC 215	Teaching as a Profession	1
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EDUC 341	Pedagogy and Assessment: K-6/Elementary	3
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EDUC 343	Teaching to Diversity	3
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EDUC 374	Exceptional and English Language Learners in the Inclusive Classroom	3
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EDUC 378	Technology for K-12 Educators	1
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EDUC 440	Methods of Teaching Language and Literacy: EC	3
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EDUC 441	Methods of Teaching Language and Literacy: Elementary	3
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EDUC 451	Methods of Teaching Mathematics: Early Childhood/Elementary	3
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EDUC 461	Methods of Teaching Science and Social Studies: Early Childhood/Elementary	3
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EDUC 471	Educational Assessment for the K-12 Educator	1
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EDUC 475	Classroom Management for K-12 Educators	1
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EDUC 499C	Teaching Internship and Colloquia: Elementary	12
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Parxis II Exam Passed

**Total Semester Credit Hours 38**

<sup>1</sup> Must earn a grade of "B" or higher.

<sup>2</sup> Calculus I-GT-MA1 (MATH 151) and Engineering Calculus I (MATH 135) are acceptable substitutions for Applied Calculus (MATH 131).

<sup>3</sup> 880 field experience hours.

<sup>4</sup> 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.

<sup>5</sup> 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-GTC01	3
POLS 101 American Government-GTSS1	3
KINA Activity	1
Essential Learning - Fine Arts	3
Essential Learning - Geology	3
Essential Learning - History	3
<b>Semester Credit Hours</b>	<b>16</b>

**Spring Semester**

ENGL 112 English Composition II-GTC02	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
<b>Semester Credit Hours</b>	<b>16</b>

**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
<b>Semester Credit Hours</b>		<b>17</b>
<b>Spring Semester</b>		
ENGL 240	Children's Literature	3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
MATH 131	Applied Calculus	4
Elementary Core - Social Sciences		3
Elementary Core - Natural Science		3
<b>Semester Credit Hours</b>		<b>17</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
CSCI 305 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
<b>Semester Credit Hours</b>		<b>18</b>
<b>Fourth Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>14</b>
<b>Spring Semester</b>		
EDUC 499C	Teaching Internship and Colloquia: Elementary	12
<b>Semester Credit Hours</b>		<b>12</b>
<b>Total Semester Credit Hours</b>		<b>126</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his 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

## About This Major . . .

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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTC01	3
ENGL 112	English Composition II-GTC02	3
<b>Mathematics</b> <sup>1,2</sup>		
MATH 205	Elements of Mathematics II-GTMA1	3
<b>History</b>		
Select one History course <sup>3</sup>		3
<b>Humanities</b>		
Select one Humanities Course <sup>4</sup>		3



<b>Social and Behavioral Sciences</b>		
PSYC 233	Human Growth and Development-GTSS3	3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>5</sup>		
Select one BIOL course		3
Select corresponding BIOL lab		1
Select one GEOL course		3
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "B" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> Must be taken after MATH 105.

<sup>3</sup> HIST 131 or HIST 132 recommended.

<sup>4</sup> ENGL or HIST course recommended.

<sup>5</sup> 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
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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
<b>Literacy and Mathematics</b>		
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 <sup>1</sup>	3
MATH 301	Mathematics for Elementary Teachers	3
<b>Kinesiology</b>		
KINE 321	Physical Activity and Health in the Classroom	3
<b>Social Sciences</b>		
POLS 101	American Government-GTSS1	3
Select two of the following:		6
ANTH 220	Principles of Archaeology	3
or ANTH 225	North American Archaeology	
ECON 201	Principles of Macroeconomics-GTSS1	3
HIST 101	Western Civilization I-GTHI1	3
HIST 131	United States History I-GTHI1	3
HIST 132	United States History II-GTHI1	3
HIST 225	History of Colorado	3
HIST 315	American Indian History	3
HIST 316	American Slavery	3
HIST 320	The American West	3
HIST 331	The 20th Century	3
HIST 344	The Age of Industry in America	3
HIST 345	History of Immigration, Race, and Ethnicity in America	3
GEOG 102	Human Geography-GTSS2	3
or GEOG 103	World Regional Geography-GTSS2	
<b>Science</b>		
Select two Natural Sciences courses from approved Essential Learning list or BIOL 209 or BIOL 210		6
<b>Art</b>		
ARTD 410	Elementary Art Education Methods	3
<b>Elementary Education Concentration: Social Science</b>		
<i>Social Science Content Area Required Courses</i>		
HIST 102	Western Civilization II-GTHI1	3
ANTH 202	Introduction to Anthropology-GTSS3	3
POLS 236	State and Local Government	3
<i>Social Science Concentration Electives</i>		
Select two of the following:		6
HIST 300	History of England to 1660	3
HIST 301	History of Modern Britain	3
HIST 302	History of Modern France	3
HIST 303	History of Modern Germany	3
HIST 330	History of 19th Century Europe	3
HIST 331	The 20th Century	3
HIST 350	Renaissance and Reformation	3
HIST 360	Medieval Europe	3
HIST 400	The Soviet Union and Eastern Europe	3
HIST 430	The Ancient Mediterranean World	3
HIST 445	The Holocaust	3
HIST 450	European History and Film	3
HIST 310	Latin American Civilization	3
HIST 333	The International History of the Cold War	3
HIST 334	History of the British Empire	3
HIST 340	History Of the Middle East	3
HIST 403	East Asia and the Modern World	3

HIST 406	History of the African Continent
HIST 305	The Old South
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 1950's and 1960's
HIST 347	Global America: 1970-2000
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	American Indian 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 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
<b>Elementary Education Requirements <sup>2,3,4</sup></b>		
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		
<b>Total Semester Credit Hours</b>		<b>38</b>

- 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		Semester Credit Hours
<b>Fall Semester</b>		
ENGL 111	English Composition I-GTC01	3
POLS 101	American Government-GTSS1	3
KINA Activity		1
Essential Learning - Fine Arts		3
Essential Learning - Geology		3
Essential Learning - History		3
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
EDUC 115	What It Means To Be An Educator	1
ENGL 112	English Composition II-GTC02	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
<b>Semester Credit Hours</b>		<b>17</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
HIST 102	Western Civilization II-GTH11	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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>17</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>18</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Fourth Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>14</b>
<b>Spring Semester</b>		
EDUC 499C	Teaching Internship and Colloquia: Elementary	12
<b>Semester Credit Hours</b>		<b>12</b>
<b>Total Semester Credit Hours</b>		<b>126</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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).

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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 her/his 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

### About This Major . . .

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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 110	Mathematical Investigations-GTMA1	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>2</sup>		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
<b>Total Semester Credit Hours</b>		<b>31</b>

- <sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.
- <sup>2</sup> One course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

- <sup>1</sup> 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 <sup>1</sup>		6
<b>Total Semester Credit Hours</b>		<b>6</b>

- <sup>1</sup> Must receive a grade of "C" or better. FLAS 114 & FLAS 115 will not fulfill this requirement.

## 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
<b>Capstone Experience</b>		
3 semester hours of upper-division independent study, internship, or other coursework as recommended by an academic advisor		3
<b>Other Upper Division Courses</b>		
37 credits of upper division coursework in any discipline		37
<b>Total Semester Credit Hours</b>		<b>40</b>

## 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
<b>Total Semester Credit Hours</b>		<b>37</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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).

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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 her/his 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

### About This Major . . .

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.
- 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 110	Mathematical Investigations-GTMA1	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>2</sup>		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> One course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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<sup>1</sup> 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
<b>Focus Area</b>		
Select 12 upper-division credits from one field of study <sup>1</sup>		12
<b>Summative Experience</b>		
An upper-division internship, practicum, independent study or coursework that connects the focus area with the technical coursework <sup>1</sup>		3
<b>Upper Division Electives</b>		
Select 18 credits of upper division electives		18
<b>Total Semester Credit Hours</b>		<b>33</b>

<sup>1</sup> 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
<b>Total Semester Credit Hours</b>		<b>14</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## University Studies, Liberal Arts (AA)

Degree: Associate of Arts  
Major: Liberal Arts  
Emphasis: University Studies  
Program Code: 2050

## About This Major . . .

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/WCCC 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>English <sup>1</sup></b>		
ENGL 111	English Composition I-GTC01	3
ENGL 112	English Composition II-GTC02	3
<b>Mathematics <sup>1</sup></b>		
MATH 110	Mathematical Investigations-GTMA1	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences <sup>2</sup></b>		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> One course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1

Select one Activity course	1
<b>Total Semester Credit Hours</b>	<b>2</b>

## Program Specific Degree Requirements

(27 semester hours of general electives)

Code	Title	Semester Credit Hours
Select electives		27
<b>Total Semester Credit Hours</b>		<b>27</b>

## Suggested Course Plan

First Year		Semester Credit Hours
<b>Fall Semester</b>		
ENGL 111	English Composition I-GTC01	3
Essential Learning - Mathematics		3
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - Natural Sciences without lab		3
General Elective		3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
ENGL 112	English Composition II-GTC02	3
KINE 100	Health and Wellness	1
Wellness Requirement - Activities Course		1
Essential Learning - Natural Sciences with lab		4
General Electives		6
<b>Semester Credit Hours</b>		<b>15</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
Essential Learning - Fine Arts		3
Essential Learning - Social and Behavioral Sciences		3
General Elective		3
General Elective		3
General Elective		3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
Essential Learning - Humanities		3
General Elective <sup>1</sup>		3
General Elective		3
General Elective		3
General Elective		3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Total Semester Credit Hours</b>		<b>60</b>

<sup>1</sup> 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## 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

Office of Student Services  
WCCC, Bishop B102  
2508 Blichmann Avenue  
970.255.2670

## Programs of Study Associates

- [Machining Technology, Manufacturing Technology \(AAS\)](#) (p. 489)
- [Welding Technology, Manufacturing Technology \(AAS\)](#) (p. 491)

## Certificates

- [Architectural Drafting, Manufacturing Technology \(Technical Certificate\)](#) (p. 493)
- [Basic Welder, Manufacturing Technology \(Technical Certificate\)](#) (p. 494)
- [Civil Drafting, Manufacturing Technology \(Technical Certificate\)](#) (p. 496)
- [CNC Machinist, Manufacturing Technology \(Technical Certificate\)](#) (p. 497)
- [Computer Aided Design/Computer Aided Manufacturing \(CAD/CAM\), Manufacturing Technology \(Technical Certificate\)](#) (p. 498)
- [Entry Level Machining, Manufacturing Technology \(Technical Certificate\)](#) (p. 499)
- [Machine and Manufacturing Trades, Manufacturing Technology \(Technical Certificate\)](#) (p. 500)
- [Manual Machinist, Manufacturing Technology \(Technical Certificate\)](#) (p. 502)
- [Mechanical Drafting, Manufacturing Technology \(Technical Certificate\)](#) (p. 503)
- [Welding Technology, Manufacturing Technology \(Technical Certificate\)](#) (p. 504)

## Machining Technology, Manufacturing Technology (AAS)

Degree: Associate of Applied Science  
Major: Manufacturing Technology  
Emphasis: Machining Technology  
Program Code: 1331

### About This Major . . .

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 [WCCC's Programs of Study](#) page.

All CMU/WCCC 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Communication</b>		
ENGL 111	English Composition I-GTC01	3
Select one of the following courses:		
ENGL 112	English Composition II-GTC02	3
SPCH 101	Interpersonal Communications	
SPCH 102	Speechmaking	
<b>Mathematics</b>		
MATH 107	Career Math (or higher)	3
<b>Other Essential Learning Core Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>15</b>

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
KINA 1XX	Activity Course	1
<b>Total Semester Credit Hours</b>		<b>2</b>

## 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 or CADT 109	Computer-Aided Design and Fabrication CAD-Mechanical Engineering	3
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 or MAMT 170	Job Shop Machining II Practical Applications	3
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
<b>Total Semester Credit Hours</b>		<b>41</b>

Code	Title	Semester Credit Hours
<b>Restricted Electives</b>		
Select one of the following:		3
WELD 151	Introduction to Welding	
TSTG 220	Workplace Skills	
CADT 108	CAD - Mechanical	
<b>Total Semester Credit Hours</b>		<b>3</b>

## Suggested Course Plan

First Year	Semester Credit Hours	
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>17</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>19</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
ENGL 111	English Composition I-GTC01	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
<b>Semester Credit Hours</b>		<b>12</b>
<b>Spring Semester</b>		
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-GTC02	
SPCH 101	Interpersonal Communications	
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 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Welding Technology, Manufacturing Technology (AAS)

Degree: Associate of Applied Science  
Major: Manufacturing Technology  
Emphasis: Welding Technology  
Program Code: 1332

### About This Major . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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)
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. (Applied Learning)
6. Demonstrate ethical and civic responsibility necessary for employees in the welding 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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, 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
<b>Communication</b>		
ENGL 111	English Composition I-GTC01	3
SPCH 101	Interpersonal Communications	3
<b>Mathematics</b>		
MATH 107	Career Math (or higher)	3
<b>Other Essential Learning Core Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>15</b>

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Total Semester Credit Hours</b>		<b>2</b>

## Program Specific Degree Requirements

(48 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
CADT 101	Introduction to Computers	1
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
<b>Total Semester Credit Hours</b>		<b>45</b>

Code	Title	Semester Credit Hours
<b>Restricted Electives</b>		
Select one of the following:		3
CADT 108	CAD - Mechanical	
MAMT 115	Introduction to Machine Shop	
TSTG 150	Fluid Power	
TSTG 220	Workplace Skills	
<b>Total Semester Credit Hours</b>		<b>3</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
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
<b>Semester Credit Hours</b>		<b>16</b>
Spring Semester		
WELD 133	Fabrication & Blueprints for Welders	4
CADT 101	Introduction to Computers	1
WELD 203	Flux Cored Arc Welding	4
WELD 111	Shielded Metal Arc Welding 2	4
WELD 230	Gas Tungsten Arc Welding	4
<b>Semester Credit Hours</b>		<b>17</b>
Second Year		
Fall Semester		
ENGL 111	English Composition I-GTC01	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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
SPCH 101	Interpersonal Communications	3
MAMT 260	Properties of Materials	3
WELD 275	Automation	4
Social Sciences, Natural Science, Fine Arts, or Humanities		3
Restricted Electives		3
<b>Semester Credit Hours</b>		<b>16</b>
<b>Total Semester Credit Hours</b>		<b>65</b>

Specialization: Architectural Drafting  
Program Code: 1175

## About This Program . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Architectural Drafting, Manufacturing Technology (Technical Certificate)

Award: Technical Certificate

Program of Study: Manufacturing Technology

- 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
<b>Total Semester Credit Hours</b>		<b>17</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester	Spring Semester	
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
<b>Semester Credit Hours</b>		<b>17</b>
<b>Total Semester Credit Hours</b>		<b>17</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Basic Welder, Manufacturing Technology (Technical Certificate)

Award: Technical Certificate  
 Program of Study: Manufacturing Technology  
 Specialization: Basic Welder  
 Program Code: 1110

## About This Program . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Total Semester Credit Hours</b>		<b>16</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Civil Drafting, Manufacturing Technology (Technical Certificate)

Award: Technical Certificate  
Program of Study: Manufacturing Technology  
Specialization: Civil Drafting  
Program Code: 1176

### About This Program . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Total Semester Credit Hours</b>		<b>11</b>

## Suggested Course Plan

First Year	Semester Credit Hours	
Fall Semester		
CADT 106	Computer Aided Design	3
CADT 130	CAD-Civil <sup>1</sup>	3
CADT 135	CAD Civil II <sup>1</sup>	3
CONC 104	Architectural/Civil Print Reading	2
<b>Semester Credit Hours</b>		<b>11</b>
<b>Total Semester Credit Hours</b>		<b>11</b>

<sup>1</sup> 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## CNC Machinist, Manufacturing Technology (Technical Certificate)

Award: Technical Certificate

Program of Study: Manufacturing Technology

Specialization: CNC Machinist

Program Code: 1129

### About This Program . . .

WCCC'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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Total Semester Credit Hours</b>		<b>9</b>

## Suggested Course Plan

First Year

Fall Semester

		Semester Credit Hours
MAMT 148	CNC Applications	3
MAMT 251	CNC Machining I <sup>1</sup>	3
MAMT 255	CNC Machining II <sup>1</sup>	3
<b>Semester Credit Hours</b>		<b>9</b>
<b>Total Semester Credit Hours</b>		<b>9</b>

<sup>1</sup> 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## 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

## About This Program . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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 or ENGR 125	CAD-Mechanical Engineering Computer-Aided Design and Fabrication	3
MAMT 148	CNC Applications	3
MAMT 255	CNC Machining II	3
<b>Total Semester Credit Hours</b>		<b>19</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Entry Level Machining, Manufacturing Technology (Technical Certificate)

Award: Technical Certificate  
Program of Study: Manufacturing Technology  
Specialization: Entry Level Machining  
Program Code: 1127

## About This Program . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Total Semester Credit Hours</b>		<b>12</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
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
<b>Semester Credit Hours</b>		<b>12</b>
<b>Total Semester Credit Hours</b>		<b>12</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Machine and Manufacturing Trades, Manufacturing Technology (Technical Certificate)

Award: Technical Certificate  
Program of Study: Manufacturing Technology

Specialization: Machine and Manufacturing Trades  
Program Code: 1337

## About This Program . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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		Semester Credit Hours
Fall Semester		
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
<b>Semester Credit Hours</b>		<b>17</b>
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	Job Shop Machining II	3
or MAMT 170	or Practical Applications	

MAMT 106	Geometric Tolerancing	2
<b>Semester Credit Hours</b>		<b>19</b>
<b>Total Semester Credit Hours</b>		<b>36</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Manual Machinist, Manufacturing Technology (Technical Certificate)

Award: Technical Certificate  
 Program of Study: Manufacturing Technology  
 Specialization: Manual Machinist  
 Program Code: 1128

### About This Program . . .

WCCC'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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Total Semester Credit Hours</b>		<b>12</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
MAMT 120	Machine Technology I <sup>1</sup>	4
MAMT 125	Machine Technology II <sup>1</sup>	4
MAMT 230	Machine Technology III <sup>1</sup>	4
<b>Semester Credit Hours</b>		<b>12</b>
<b>Total Semester Credit Hours</b>		<b>12</b>

<sup>1</sup> 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Mechanical Drafting, Manufacturing Technology (Technical Certificate)

Award: Technical Certificate  
Program of Study: Manufacturing Technology  
Specialization: Mechanical Drafting  
Program Code: 1177

## About This Program . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Total Semester Credit Hours</b>		<b>10</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
CADT 108	CAD - Mechanical	3
CADT 109	CAD-Mechanical Engineering	3
MAMT 105	Print Reading and Sketching	2
MAMT 106	Geometric Tolerancing	2
<b>Semester Credit Hours</b>		<b>10</b>
<b>Total Semester Credit Hours</b>		<b>10</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Welding Technology, Manufacturing Technology (Technical Certificate)

Award: Technical Certificate  
Program of Study: Manufacturing Technology  
Specialization: Welding Technology  
Program Code: 1338

## About This Program . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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

(33 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
CADT 101	Introduction to Computers	1
<b>Total Semester Credit Hours</b>		<b>33</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
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
<b>Semester Credit Hours</b>		<b>16</b>
Spring Semester		
WELD 133	Fabrication & Blueprints for Welders	4
CADT 101	Introduction to Computers	1
WELD 203	Flux Cored Arc Welding	4
WELD 111	Shielded Metal Arc Welding 2	4
WELD 230	Gas Tungsten Arc Welding	4
<b>Semester Credit Hours</b>		<b>17</b>
<b>Total Semester Credit Hours</b>		<b>33</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## 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 in the department (CMU-TV, KMSA radio, The Criterion newspaper, Horizon Magazine, or the PR Club) as well as an outside media business or 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 \(PCT\)](#) (p. 506)

### Bachelors/Minors

- [Mass Communication \(Minor\)](#) (p. 508)
- [Media Strategies and Applications, Mass Communication \(BA\)](#) (p. 509)

## Arts Media Communication (PCT)

### Overview

Award: Professional Certificate  
Program of Study: Arts Media Communication  
Program Code: 1704

### About This Program . . .

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 critical thinking, communication fluency, quantitative fluency, and specialized knowledge/applied learning. 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 <sup>1</sup>	3
MASS 315E	Specialized Writing for Media: Arts Journalism <sup>1</sup>	3
MASS 415	Advanced Media Writing and Reporting <sup>1</sup>	3
MASS 497	Practicum <sup>2</sup>	1
MASS 499	Internship <sup>3</sup>	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 <sup>1</sup>
ENGL 390	Introduction to Film Studies <sup>4</sup>
ENGL 394	Technical and Professional Writing Topics <sup>4</sup>
ENGL 421	Introduction to Literary Theory and Criticism <sup>5</sup>

**Total Semester Credit Hours** **20-22**

- <sup>1</sup> These courses require a prerequisite of MASS 213, which requires completion of MASS 140.
- <sup>2</sup> These courses require a prerequisite of MASS 140 and MASS 144.
- <sup>3</sup> These courses require a prerequisite of MASS 213 and MASS 310.
- <sup>4</sup> These courses require a prerequisite of ENGL 111 and ENGL 112.
- <sup>5</sup> These courses require a prerequisite of ENGL 210, which has a prerequisite of ENGL 111.

## Suggested Course Plan

First Year		Semester Credit Hours
<b>Fall Semester</b>		
MASS 310	Media Law and Ethics	3
MASS 315E	Specialized Writing for Media: Arts Journalism	3
Elective		3
<b>Semester Credit Hours</b>		<b>9</b>
<b>Spring Semester</b>		
MASS 415	Advanced Media Writing and Reporting	3
Elective		3
<b>Semester Credit Hours</b>		<b>6</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
MASS 397	Practicum	1
Elective		3
<b>Semester Credit Hours</b>		<b>4</b>
<b>Spring Semester</b>		
MASS 499	Internship	1-3
<b>Semester Credit Hours</b>		<b>1-3</b>
<b>Total Semester Credit Hours</b>		<b>20-22</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If your petition for graduation is denied, it will be your responsibility to apply for graduation in a subsequent semester. Your "Intent to Graduate" does not automatically move to a later graduation date.

## Mass Communication (Minor)

Minor: Mass Communication  
Program Code: M250

### About This Minor . . .

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 <sup>1</sup>		6
<b>Total Semester Credit Hours</b>		<b>19</b>

<sup>1</sup> 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 her/his 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 her/his responsibility to consult the Registrar's Office regarding next steps.

## Media Strategies and Applications, Mass Communication (BA)

Degree: Bachelor of Arts  
Major: Mass Communication  
Concentration: Media Strategies and Applications  
Program Code: 3256

### About This Major . . .

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. Evaluate and apply diversity, objectivity, and balance to any form of mass communication. (Critical Thinking)
3. Justify the decision for resolving moral or ethical mass communication dilemmas. (Specialized Knowledge)
4. Write compelling content that demonstrates proper grammar, well-organized facts, and story-telling techniques for a variety of media. (Communication Fluency)
5. Determine validity of sources and research techniques and interpret data. (Quantitative Fluency)
6. Evaluate mass communication theories and assess their use. (Specialized Knowledge)
7. Demonstrate proper application of industry tools and techniques common to mass communication. (Applied Learning)
8. Determine the best methods and strategies for developing a message. (Communication Fluency)
9. Reflect on and respond to ethical, social, civic, and/or environmental challenges at local, national, and/or global levels (Personal and Social Responsibility)
10. Find relevant sources of information, evaluate information critically, and apply 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTC01	3
ENGL 112	English Composition II-GTC02	3
<b>Mathematics</b> <sup>2</sup>		
MATH 110	Mathematical Investigations-GTMA1 (or higher)	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>3</sup>		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "B" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

<sup>3</sup> One course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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 <sup>1</sup>		6
<b>Total Semester Credit Hours</b>		<b>9</b>

<sup>1</sup> FLAS 114 & FLAS 115 will NOT fulfill this requirement.

## 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
<b>Mass Communication Core</b>		
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 498	Senior Project Portfolio	1
MASS 499	Internship <sup>1</sup>	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
<b>Total Semester Credit Hours</b>	<b>44</b>

<sup>1</sup> 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
<b>Total Semester Credit Hours</b>		<b>30</b>

## Suggested Course Plan

### First Year

Fall Semester		Semester Credit Hours
ENGL 111	English Composition I-GTC01	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
<b>Semester Credit Hours</b>		<b>16</b>

### Spring Semester

ENGL 112	English Composition II-GTC02	3
MASS 140	Media Theory Introduction	3
MASS 144	Multimedia Storytelling	3
Essential Learning - Natural Science		3
Essential Learning - Social and Behavioral Science		3
<b>Semester Credit Hours</b>		<b>15</b>

### Second Year

Fall Semester		Semester Credit Hours
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
<b>Semester Credit Hours</b>		<b>16</b>

### 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
<b>Semester Credit Hours</b>		<b>14</b>

### Third Year

Fall Semester		Semester Credit Hours
MASS 310	Media Law and Ethics	3
MASS 397	Practicum	1
Strategy or Application (2 courses)		6
Electives (2 courses)		6
<b>Semester Credit Hours</b>		<b>16</b>

Spring Semester		Semester Credit Hours
Strategy or Application (2 courses)		6
Electives (3 courses)		9
<b>Semester Credit Hours</b>		<b>15</b>

  

Fourth Year		Semester Credit Hours
Fall Semester		
Strategy or Application (2 courses)		6
Electives (3 courses)		9
<b>Semester Credit Hours</b>		<b>15</b>
Spring Semester		
MASS 494	Seminar: Advanced Theory and Research	3
MASS 498	Senior Project Portfolio	1
MASS 499	Internship	3
Electives (2 courses)		6
<b>Semester Credit Hours</b>		<b>13</b>
<b>Total Semester Credit Hours</b>		<b>120</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.



# Mathematics

## Program Description

An **Associate of Science in Mathematics** 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.

Pursuing a **Baccalaureate degree in Mathematics**, 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 **Baccalaureate degree in Mathematics with a concentration in Applied Mathematics** 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 **Baccalaureate degree 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 demand both locally and statewide with the scarcity of mathematics teachers.

With a **Baccalaureate degree in Mathematics with a concentration in Statistics**, 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 **Baccalaureate degree in Mathematics with a concentration in Actuarial Science**, 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.

A **Minor in Mathematics** 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** 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.

The **Graduate Certificate in Applied Mathematics** 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. 335).

## Contact Information

Department of Mathematics and Statistics  
Wubben Science 132  
970.248.1407

## Programs of Study Associates

- [Mathematics, Liberal Arts \(AS\)](#) (p. 527)

## Bachelors/Minors

- [Actuarial Science, Mathematics \(BS\)](#) (p. 513)
- [Applied Mathematics, Mathematics \(BS\)](#) (p. 515)
- [Education: Secondary Education, Mathematics \(BS\)](#) (p. 521)
- [Mathematics \(BS\)](#) (p. 518)
- [Mathematics \(Minor\)](#) (p. 529)
- [Statistics \(Minor\)](#) (p. 530)
- [Statistics, Mathematics \(BS\)](#) (p. 524)

## Graduate

- [Applied Mathematics \(Graduate Certificate\)](#) (p. 316)

## Actuarial Science, Mathematics (BS)

Degree: Bachelor of Science  
 Major: Mathematics  
 Concentration: Actuarial Science  
 Program Code: 3438

### About This Major...

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 understand its limitations. (Applied Learning)
3. Apply appropriate statistical procedures and justify chosen assumptions. (Applied Learning, Personal and Social Responsibility)
4. Draw statistical conclusions and evaluate the validity of others' 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTC01	3
ENGL 112	English Composition II-GTC02	3
<b>Mathematics</b> <sup>1</sup>		
MATH 151	Calculus I-GT-MA1 <sup>2</sup>	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		

Select one Fine Arts course	3
<b>Natural Sciences</b> <sup>3</sup>	
Select one Natural Sciences course with a lab	4
Select one Natural Sciences course	3
<b>Total Semester Credit Hours</b>	<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

<sup>2</sup> This is a 5 credit course. 3 credits apply to the Essential Learning requirements and 2 credits apply to electives.

<sup>3</sup> One course must include a lab.

## Other Lower Division Requirements

(6 semester hours)

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
KINA 1XX	Activity Course	1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 200	Essential Speech	1
ESSL 290	Maverick Milestone	3
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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
CISB 241	Introduction to Business Analysis	3
or STAT 241	Introduction to Business Analysis	
<b>Total Semester Credit Hours</b>		<b>8</b>

## Program Specific Degree Requirements

(54-55 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
<b>Core Courses</b>		
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 310	Risk Management	3
STAT 301	Computational Statistics	3
STAT 312	Correlation and Regression	3
STAT 350	Mathematical Statistics I	3
STAT 351	Mathematical Statistics II	3

### Concentration Electives

12-14

Choose four courses from the groups below. At least two courses must be from Group A and the remaining courses may be from either group.

#### Group A

STAT 313	Sampling Techniques
STAT 425	Design and Analysis of Experiments
STAT 430	Categorical Data Analysis
STAT 435	Introduction to Time Series

#### Group B

MATH 240	Introduction to Advanced Mathematics
MATH 361	Numerical Analysis
MATH 362	Fourier Analysis
MATH 365	Mathematical Modeling
MATH 369	Discrete Structures I
FINA 301	Managerial Finance <sup>1</sup>

### Total Semester Credit Hours

54-56

<sup>1</sup> Has prerequisite of ACCT 201: Principles of Financial 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, including 40 upper-division credit hours. 19-21 semester hours; 3-7 hours of upper division may be needed.

Code	Title	Semester Credit Hours
MATH 151	Calculus I-GT-MA1	2
Select additional electives		17-19
<b>Total Semester Credit Hours</b>		<b>19-21</b>

## 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**

Select four credit hours from the following:

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
	<b>Semester Credit Hours</b>	<b>15</b>

**Spring Semester**

ENGL 112	English Composition II-GTCO2	3
Essential Learning - History		3
Essential Learning - Social and Behavioral Sciences		3
KINA Activity		1
MATH 150	Topics and Careers in Mathematics	1
MATH 152	Calculus II	5
	<b>Semester Credit Hours</b>	<b>16</b>

**Second Year****Fall Semester**

CISB 241 or STAT 241	Introduction to Business Analysis or Introduction to Business Analysis	3
ECON 201	Principles of Macroeconomics-GTSS1	3
Essential Learning - Fine Arts		3
Essential Learning - Humanities		3
MATH 253	Calculus III	4
	<b>Semester Credit Hours</b>	<b>16</b>

**Spring Semester**

CSCI 260	Introduction to Database	3
ESSL 200	Essential Speech	1
ESSL 290	Maverick Milestone	3
Essential Learning - Natural Science with Lab		4
KINE 100	Health and Wellness	1
MATH 225	Computational Linear Algebra	3
	<b>Semester Credit Hours</b>	<b>15</b>

**Third Year****Fall Semester**

CISB 341	Quantitative Decision Making	3
FINA 310	Risk Management	3
General Elective		3
STAT 301	Computational Statistics	3
STAT 350	Mathematical Statistics I	3
	<b>Semester Credit Hours</b>	<b>15</b>

**Spring Semester**

Concentration Elective from Group A or B		3
Essential Learning - Natural Science		3
General Elective		3
STAT 312	Correlation and Regression	3
STAT 351	Mathematical Statistics II	3
	<b>Semester Credit Hours</b>	<b>15</b>

**Fourth Year****Fall Semester**

Concentration Electives from Group A or B		6-8
General Electives		6
MATH 492	Senior Capstone	3
	<b>Semester Credit Hours</b>	<b>15-17</b>

**Spring Semester**

Concentration Elective from Group A or B		3
ECON 415	Econometrics	3

General Electives

5-7

**Semester Credit Hours****11-13****Total Semester Credit Hours****118-122**

## 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

## About This Major . . .

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 understand 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. Demonstrate comprehension of applied mathematics and deliver a substantial 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 151	Calculus I-GT-MA1 <sup>2</sup>	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>3</sup>		
Select one Natural Sciences course with a lab		4
Select one Natural Sciences course		3
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

<sup>2</sup> This is a 5 credit course. 3 credits apply to the Essential Learning requirements and 2 credits apply to electives.

<sup>3</sup> One course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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
<b>Total Semester Credit Hours</b>		<b>8</b>

## 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
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### 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 360	Methods of Applied Mathematics	3
MATH 365	Mathematical Modeling	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

#### Category 1

Select one of the following:		3
STAT 312	Correlation and Regression	
STAT 350	Mathematical Statistics I	
STAT 430	Categorical Data Analysis	
STAT 435	Introduction to Time Series	
CSCI 365	Data Mining	
CSCI 380	Operations Research	

#### Category 2

Select one of the following:		3-4
MATH 361	Numerical Analysis	
MATH 362	Fourier Analysis	
MATH 369	Discrete Structures I	

#### Category 3

Select one of the following:		3
MATH 325	Linear Algebra	
MATH 352	Advanced Calculus	
MATH 450	Complex Variables	
PHYS 471	Computational Physics I	

**Total Semester Credit Hours 49-51**

## General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours, 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 <sup>1</sup>		22-24
<b>Total Semester Credit Hours</b>		<b>24-26</b>

<sup>1</sup> 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-GTC01	3
KINA Activity		1
KINE 100	Health and Wellness	1
Essential Learning - Natural Science		3
Essential Learning - Social and Behavioral Sciences		3
<b>Semester Credit Hours</b>		<b>16</b>

### Spring Semester

MATH 152	Calculus II	5
ENGL 112	English Composition II-GTC02	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
<b>Semester Credit Hours</b>		<b>16</b>

### Second Year

Fall Semester	Semester Credit Hours	
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
<b>Semester Credit Hours</b>		<b>17</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16-17</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
ESSL 200	Essential Speech	1
ESSL 290	Maverick Milestone	3
STAT 301	Computational Statistics	3
MATH 360	Methods of Applied Mathematics	3
Concentration Elective		3-4
<b>Semester Credit Hours</b>		<b>13-14</b>
<b>Spring Semester</b>		
MATH 366	Methods of Applied Mathematics II	3
MATH 365	Mathematical Modeling	3
Concentration Elective		3
General Electives		6
<b>Semester Credit Hours</b>		<b>15</b>
<b>Fourth Year</b>		
<b>Fall Semester</b>		
MATH 466	Methods of Applied Mathematics III	3
MATH 492	Senior Capstone	3
General Electives		6
<b>Semester Credit Hours</b>		<b>12</b>
<b>Spring Semester</b>		
Concentration Elective		3
General Electives		10-12
<b>Semester Credit Hours</b>		<b>13-15</b>
<b>Total Semester Credit Hours</b>		<b>118-122</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Mathematics (BS)

Degree: Bachelor of Science

Major: Mathematics

Program Code: 3424

## About This Major . . .

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 understand its limitations. (Applied Learning)
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- 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 151	Calculus I-GTMA1 <sup>2</sup>	3

<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b>		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
<b>Total Semester Credit Hours</b>		<b>31</b>

- <sup>1</sup> Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.
- <sup>2</sup> 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
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

- <sup>1</sup> 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
<b>Total Semester Credit Hours</b>		<b>8</b>

## 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
<b>Core Courses</b>		
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	Intro to Real Analysis I	3
MATH 490	Abstract Algebra I	3

**Total Semester Credit Hours** 31

Code	Title	Semester Credit Hours
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**Concentration Electives**

Select four of the following:<sup>1</sup> 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 370	Discrete Structures II	
MATH 386	Geometries	
MATH 396	Topics	
or MATH 496 Topics		
MATH 420	Introduction to Topology	
MATH 430	Mathematical Logic	
MATH 450	Complex Variables	
MATH 460	Advanced Linear Algebra	
MATH 453	Intro to Real Analysis II	
MATH 466	Methods of Applied Mathematics III	
MATH 491	Abstract Algebra II	
STAT 301	Computational Statistics	

**Total Semester Credit Hours** 12-15

<sup>1</sup> 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-GT-MA1	2
Select additional electives		27-30
<b>Total Semester Credit Hours</b>		<b>29-32</b>

## Suggested Course Plan

While the sequencing below culminates in a total of 117-124 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
MATH 151	Calculus I-GT-MA1	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
<b>Semester Credit Hours</b>		<b>16</b>

**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
<b>Semester Credit Hours</b>		<b>16</b>

**Second Year**

Fall Semester		Semester Credit Hours
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
<b>Semester Credit Hours</b>		<b>17</b>

**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
<b>Semester Credit Hours</b>		<b>16</b>

**Third Year**

Fall Semester		Semester Credit Hours
ESSL 200	Essential Speech	1
ESSL 290	Maverick Milestone	3
General Electives		6
MATH 310	Number Theory	3
MATH 452	Intro to Real Analysis I	3
<b>Semester Credit Hours</b>		<b>16</b>

**Spring Semester**

MATH 490	Abstract Algebra I	3
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Concentration Elective		3-4
General Electives		9
<b>Semester Credit Hours</b>		<b>15-16</b>
<b>Fourth Year</b>		
<b>Fall Semester</b>		
Concentration Elective		3-4
Concentration Elective, 400-level		3-4
General Elective		3
MATH 492	Senior Capstone	3
<b>Semester Credit Hours</b>		<b>12-14</b>
<b>Spring Semester</b>		
Concentration Elective		3-4
General Electives		6-9
<b>Semester Credit Hours</b>		<b>9-13</b>
<b>Total Semester Credit Hours</b>		<b>117-124</b>

Major: Mathematics  
 Concentration: Secondary Education  
 Program Code: 3430

## About This Major . . .

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 understand 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: Effectively communicate mathematics using oral and written exposition appropriate for teachers of mathematics. (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

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Education: Secondary Education, Mathematics (BS)

Degree: Bachelor of Science

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 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTC01	3
ENGL 112	English Composition II-GTC02	3
<b>Mathematics</b> <sup>2</sup>		
MATH 119	Precalculus Mathematics-GTMA1 (or higher) <sup>3,4</sup>	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
PSYC 233	Human Growth and Development-GTSS3 <sup>5</sup>	3
Select one Social and Behavioral Sciences course <sup>6</sup>		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>7</sup>		
Select one Natural Science course with lab		4
Select one Natural Science course		3
<b>Total Semester Credit Hours</b>		<b>31</b>

- <sup>1</sup> Must receive a grade of "B" or better and must be completed by the time the student has 60 semester hours.
- <sup>2</sup> Must receive a grade of "C" or better, must be completed by the time the student has 60 semester hours.
- <sup>3</sup> MATH 119 is a 5 semester credit hour course. 3 credits apply to the Essential Learning requirements and 2 credits apply to elective credit.
- <sup>4</sup> May also satisfy this requirement by completing both MATH 119A: Algebra for Calculus (4 credits) and MATH 119B: Trigonometry for Calculus (3 credits).
- <sup>5</sup> Must receive a grade of "B" or higher.
- <sup>6</sup> GEOG 103 - World Regional Geography (3) recommended.
- <sup>7</sup> 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
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone <sup>1</sup></b>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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
<b>Total Semester Credit Hours</b>		<b>8</b>

## 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
<b>Core Courses</b>		
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	
<b>Concentration Courses</b>		
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

<b>Concentration Electives</b>		
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	
<b>Total Semester Credit Hours</b>		<b>43-44</b>

## 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 497	Content Methodology Practicum (80 field experience hours)	3
EDUC 497C	Methods of Teaching Secondary Mathematics <sup>1</sup>	2
EDUC 499G	Teaching Internship and Colloquia: Secondary (600 field experience hours)	12
Praxis II Exam Passed		
<b>Total Semester Credit Hours</b>		<b>29</b>

<sup>1</sup> 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
<b>Total Semester Credit Hours</b>		<b>2-3</b>

## 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.

		Semester Credit Hours
<b>First Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
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	1
<b>Semester Credit Hours</b>		<b>16</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>17-18</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16-17</b>

### 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 497	Content Methodology Practicum	3
EDUC 497C	Methods of Teaching Secondary Mathematics	2
MATH 492	Senior Capstone	3
<b>Semester Credit Hours</b>		<b>12</b>

#### Spring Semester

EDUC 499G	Teaching Internship and Colloquia: Secondary	12
<b>Semester Credit Hours</b>		<b>12</b>
<b>Total Semester Credit Hours</b>		<b>119-121</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Statistics, Mathematics (BS)

Degree: Bachelor of Science  
Major: Mathematics  
Concentration: Statistics  
Program Code: 3434

## About This Major . . .

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 mathematical software (including calculators) to aid in problem-solving and investigation, and understand its limitations. (Applied Learning)
3. Apply appropriate statistical procedures and justify chosen assumptions. (Applied Learning, Personal and Social Responsibility)
4. Draw statistical conclusions and evaluate the validity of others' 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. Demonstrate comprehension of an advanced topic in statistics 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 151	Calculus I-GT-MA1 <sup>2</sup>	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b>		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

<sup>2</sup> 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
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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
<b>Total Semester Credit Hours</b>		<b>8</b>

## Program Specific Degree Requirements

(45-47 semester hours. A 2.5 cumulative GPA is required in the major courses. At most one "D" may be used in completing major requirements.)

Code	Title	Semester Credit Hours
<b>Core Courses</b>		
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	
<b>Concentration Courses</b>		
CSCI 260	Introduction to Database	3
STAT 301	Computational Statistics	3
STAT 312	Correlation and Regression	3
STAT 350	Mathematical Statistics I	3
STAT 351	Mathematical Statistics II	3
STAT 425	Design and Analysis of Experiments	3
<b>Concentration Electives</b>		
Select one of the following:		3-4
MATH 240	Introduction to Advanced Mathematics	

MATH 369	Discrete Structures I	
Choose three courses from the following groups: <sup>1</sup>		9-10
<b>Group A</b>		
STAT 313	Sampling Techniques	
STAT 430	Categorical Data Analysis	
STAT 435	Introduction to Time Series	
<b>Group B</b>		
MATH 361	Numerical Analysis	
MATH 362	Fourier Analysis	
MATH 365	Mathematical Modeling	
<b>Total Semester Credit Hours</b>		<b>45-47</b>

<sup>1</sup> At least two courses must be from Group A and the third course may be from Group A or Group B.

## 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-GT-MA1	2
Select additional electives		26-28
<b>Total Semester Credit Hours</b>		<b>28-30</b>

## 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.

<b>First Year</b>		
<b>Fall Semester</b>		<b>Semester Credit Hours</b>
ENGL 111	English Composition I-GTC01	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-GT-MA1	5
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
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-GTC02	3
Essential Learning - Social and Behavioral Sciences		3
MATH 150	Topics and Careers in Mathematics	1
MATH 152	Calculus II	5
<b>Semester Credit Hours</b>		<b>16</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
Essential Learning - Fine Arts		3

Essential Learning - History		3
General Elective		3
MATH 253	Calculus III	4
STAT 200	Probability and Statistics-GTMA1	3
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>13-14</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
Concentration Elective from Group A or B		3
General Electives		6
STAT 312	Correlation and Regression	3
STAT 351	Mathematical Statistics II	3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Fourth Year</b>		
<b>Fall Semester</b>		
Concentration Elective from Group A or B		3-4
General Electives		6
MATH 492	Senior Capstone	3
STAT 425	Design and Analysis of Experiments	3
<b>Semester Credit Hours</b>		<b>15-16</b>
<b>Spring Semester</b>		
Concentration Elective from Group A or B		3
General Electives		8-10
<b>Semester Credit Hours</b>		<b>11-13</b>
<b>Total Semester Credit Hours</b>		<b>118-122</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his 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

## About This Major . . .

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/WCCC 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 119	Precalculus Mathematics-GTMA1 <sup>2</sup>	3
	or MATH 151	Calculus I-GT-MA1
<b>History</b>		
	Select one History course	3
<b>Humanities</b>		
	Select one Humanities course	3
<b>Social and Behavioral Sciences</b>		
	Select one Social and Behavioral Sciences course	3
	Select one Social and Behavioral Sciences course	3
<b>Fine Arts</b>		
	Select one Fine arts course	3
<b>Natural Sciences</b> <sup>3</sup>		
	Select one Natural Sciences course with a lab	4
	Select one Natural Sciences course	3
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> 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.

<sup>3</sup> One course must include a lab.

## Other Lower Division Requirements

(2 semester hours)

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
	Select one Activity course	1
<b>Total Semester Credit Hours</b>		<b>2</b>

## 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-GT-MA1 <sup>1</sup>	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
<b>Total Semester Credit Hours</b>		<b>20-21</b>

<sup>1</sup> 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 <sup>1</sup>		4-10
<b>Total Semester Credit Hours</b>		<b>6-12</b>

<sup>1</sup> 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		Semester Credit Hours
Fall Semester		
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
<b>Semester Credit Hours</b>		<b>15</b>
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
<b>Semester Credit Hours</b>		<b>15</b>
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
<b>Semester Credit Hours</b>		<b>14-15</b>
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 <sup>1</sup>	4
<b>Semester Credit Hours</b>	<b>16-17</b>
<b>Total Semester Credit Hours</b>	<b>60-62</b>

<sup>1</sup> 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 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Mathematics (Minor)

Minor: Mathematics  
Program Code: M460

### About This Minor. . .

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 or MATH 136	Calculus II Engineering Calculus II	4-5
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 370	Discrete Structures II
MATH 386	Geometries
MATH 420	Introduction to Topology
MATH 430	Mathematical Logic
MATH 450	Complex Variables
MATH 452	Intro to Real Analysis I
MATH 453	Intro 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 496 Topics

**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 her/his 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 her/his responsibility to consult the Registrar's Office regarding next steps.

## Statistics (Minor)

Minor: Statistics

Program Code: M465

## About This Minor. . .

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
Select one of the following:		
STAT 200	Probability and Statistics-GTMA1	3-4
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:		
MATH 121	Calculus for Business	3-5
MATH 131	Applied Calculus	
MATH 135	Engineering Calculus I	
MATH 151	Calculus I-GT-MA1	
Choose 12 semester hours of the following:		
STAT 301	Computational Statistics	12
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 435	Introduction to Time Series	
STAT 496	Topics	
<b>Total Semester Credit Hours</b>		<b>18-21</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 her/his 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. They may apply to the 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 in technical courses (calculus, science, and engineering) of 3.0 or better

Interested students can learn more about the program and admission options on the [Department of Computer Science and Engineering website](#).

## Contact Information

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. 532)

## 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

[More information for CMU/CU Boulder Partnership Degree in Mechanical Engineering](#)

# Mechanical Engineering Technology

## 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, 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.

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

Confluence Hall  
1410 North 7th Street  
Grand Junction, CO, 81501  
970.248.1400

## Programs of Study

### Associates

- [Mechanical Engineering Technology \(AAS\)](#) (p. 532)

### Bachelors

- [Mechanical Engineering Technology \(BS\)](#) (p. 534)

## Mechanical Engineering Technology (AAS)

Degree: Associate of Applied Science  
Major: Mechanical Engineering Technology  
Program Code: 1453

## About This Major . . .

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/WCCC 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Communication</b>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b>		
MATH 135	Engineering Calculus I	4
<b>Humanities</b>		
Select one Humanities Course		3
<b>Social and Behavioral Sciences</b>		
SOCI 120	Technology and Society-GTSS3	3
<b>Total Semester Credit Hours</b>		<b>16</b>

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one KINA Activity course		1
<b>Total Semester Credit Hours</b>		<b>2</b>

## 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
<b>Total Semester Credit Hours</b>		<b>50</b>

## 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
<b>Semester Credit Hours</b>		<b>16</b>

#### 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
<b>Semester Credit Hours</b>		<b>18</b>

### 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
<b>Semester Credit Hours</b>		<b>18</b>

#### 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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Total Semester Credit Hours</b>		<b>68</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Mechanical Engineering Technology (BS)

Degree: Bachelor of Science  
Major: Mechanical Engineering Technology  
Program Code: 3453

## About This Major . . .

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.

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:

- 127 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.

## 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTC01	3
ENGL 112	English Composition II-GTC02	3
<b>Mathematics</b> <sup>1</sup>		
MATH 135	Engineering Calculus I <sup>2</sup>	3
<b>History</b>		
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 <sup>3</sup>		
PHYS 131 & 131L	Fundamental Mechanics-GTSC1 and Fundamental Mechanics Laboratory-GTSC1	5
CHEM 151 or CHEM 131	Engineering Chemistry-GTSC1 <sup>4</sup> or General Chemistry I-GTSC1	2
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> This is a 4 semester credit hour course. 3 credits apply to the Essential Learning requirements and 1 credit applies to Foundation Courses.

<sup>3</sup> One course must include a lab.

<sup>4</sup> 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 <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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.)

Code	Title	Semester Credit Hours
Choose one of the following:		
CHEM 151 & 151L	Engineering Chemistry-GTSC1 and Engineering Chemistry Laboratory-GTSC1	3
CHEM 131 & 131L	General Chemistry I-GTSC1 and General Chemistry Laboratory I-GTSC1	3
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
<b>Total Semester Credit Hours</b>		<b>13</b>

## Program Specific Degree Requirements

(77 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. Prerequisites for these courses must be passed with a grade of "C" or higher.)

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 & 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 446	Writing for Design Projects	1
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		
<b>Total Semester Credit Hours</b>		<b>77</b>

## Suggested Course Plan

		Semester Credit Hours
<b>First Year</b>		
<b>Fall Semester</b>		
ENGL 111	English Composition I-GTC01	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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
ENGL 112	English Composition II-GTC02	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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
ENGR 225	Introduction to Manufacturing	3
ENGR 305	Engineering Economics & 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
<b>Semester Credit Hours</b>		<b>17</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Fourth Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
ENGR 435	Industrial Controls	3
ENGR 446	Writing for Design Projects	1
ENGR 485	MET Design Project II	3
Essential Learning - Social/Behavioral Sciences		3
Restricted Elective		6
<b>Semester Credit Hours</b>		<b>16</b>
<b>Total Semester Credit Hours</b>		<b>127</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## 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

Office of Student Services  
WCCC, Bishop B102  
2508 Blichmann Avenue  
970.255.2670

## Programs of Study

Associates

- [Mechatronics \(AAS\)](#) (p. 538)

## Certificates

- [Mechatronics: Automation and Instrumentation \(Technical Certificate\)](#) (p. 540)
- [Mechatronics: Electronics Technician \(Technical Certificate\)](#) (p. 541)

## Mechatronics (AAS)

Degree: Associate of Applied Science  
Major: Mechatronics  
Major Code: 1398

## About This Major . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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)
2. Demonstrate safe work habits in performance of tasks. (Applied Learning)
3. Demonstrate ethical, civic, and work place responsibility as part of professional behavior. (Specialized Knowledge)
4. Demonstrate basic troubleshooting skill sets and repair skill sets to fulfill the needs of entry-level employment. (Critical Thinking)
5. Analyze and implement systems containing hardware and software components. (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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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 61 semester credit hours is required for the AAS in Mechatronics.

## 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
<b>Communication</b>		
ENGL 111	English Composition I-GTC01	3
Select one of the following courses:		3
ENGL 112	English Composition II-GTC02	
SPCH 101	Interpersonal Communications	
SPCH 102	Speechmaking	
<b>Mathematics</b>		
MATH 108	Technical Mathematics (or higher) <sup>1</sup>	3
<b>Other Essential Learning Core Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>15</b>

<sup>1</sup> MATH 108 is a 4 semester credit hour course; however, if a student completes a higher-level, Essential Learning eligible MATH course at 3 semester credit hours, that course would fulfill the Mathematics Essential Learning requirement. If MATH 108 is completed, the extra one hour will count as a general elective hour.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
KINA 1XX	Activity Course	1
<b>Total Semester Credit Hours</b>		<b>2</b>

## Program Specific Degree Requirements

(44 semester hours, must earn a grade of "C" or better in each course)

Code	Title	Semester Credit Hours
CSCI 110	Beginning Programming	3
ELCE 120	Commercial Wiring	4
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
MAMT 115	Introduction to Machine Shop	3
MAMT 145	Machine Maintenance	2
TECI 142	Internet of Things	3
TSTG 120	Industrial Safety Practices	2
TSTG 150	Fluid Power	3

**Total Semester Credit Hours** **44**

## 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 61 semester credit hours, including satisfactory completion of all required courses, for satisfactory completion of degree.

First Year		Semester Credit Hours
<b>Fall Semester</b>		
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) <sup>1</sup>	3-4
TSTG 120	Industrial Safety Practices	2
<b>Semester Credit Hours</b>		<b>16-17</b>
<b>Spring Semester</b>		
CSCI 110	Beginning Programming	3
ELCE 120	Commercial Wiring	4
ELCE 155	AC Circuit Fundamentals	4
MAMT 145	Machine Maintenance	2
KINE 100	Health and Wellness	1
KINA Activity		1
<b>Semester Credit Hours</b>		<b>15</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
ELCE 222	Instrumentation and Process	4
ELCE 263	Specific Wiring for Structured Cabling Systems	2
TECI 142	Internet of Things	3
ENGL 111	English Composition I-GTC01	3
Essential Learning Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
ELCE 220	Industrial Controls	4
ELCE 229	AC/DC Variable Speed Drive	2
TSTG 150	Fluid Power	3
Select one of the following:		3
ENGL 112	English Composition II-GTC02	
SPCH 101	Interpersonal Communications	
SPCH 102	Speechmaking	
Essential Learning Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Total Semester Credit Hours</b>		<b>61-62</b>

<sup>1</sup> **MATH 108** is a 4 semester credit hour course; however, if a student completes a higher-level, Essential Learning eligible MATH course at 3 semester credit hours, that course will 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 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

# Mechatronics: Automation and Instrumentation (Technical Certificate)

Award: Technical Certificate

Major: Mechatronics

Emphasis: Automation and Instrumentation

Program Code: 1198

## About This Program . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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)

Code	Title	Semester Credit Hours
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	4
TSTG 120	Industrial Safety Practices	2
TSTG 150	Fluid Power	3
<b>Total Semester Credit Hours</b>		<b>32</b>

## 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	4
TSTG 120	Industrial Safety Practices	2
<b>Semester Credit Hours</b>		<b>17</b>

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	Fluid Power	3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Total Semester Credit Hours</b>		<b>32</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Mechatronics: Electronics Technician (Technical Certificate)

### Overview

Award: Technical Certificate  
Program of Study: Mechatronics  
Specialization: Electronics Technician  
Program Code: 1197

### About This Program . . .

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 Career Services' [What to Do with a Major?](#) resource.

For more information on what you can do with this major, visit [WCCC's Programs of Study page](#).

All CMU/WCCC 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 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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	4
<b>Total Semester Credit Hours</b>		<b>16</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
ELCE 150	DC Circuit Fundamentals	4
MATH 108	Technical Mathematics	4
<b>Semester Credit Hours</b>		<b>8</b>
Spring Semester		
ELCE 155	AC Circuit Fundamentals	4
ELCE 225	Introduction to PLCs	4
<b>Semester Credit Hours</b>		<b>8</b>
<b>Total Semester Credit Hours</b>		<b>16</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## 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. 543)

## Medical Laboratory Technician (AAS)

Degree: Associate of Applied Science  
Major: Medical Laboratory Technician  
Program Code: 1641

### About This Major . . .

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, the second year consists mainly of MLT program courses, followed by one semester of clinical internship at an affiliated site in western Colorado.

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.

The student will receive an Associate of Applied Science degree upon successful completion of the program. The graduate is then eligible to take the Medical Laboratory Technician national certification exam through the American Society for Clinical Pathology (ASCP). A passing score on the ASCP exam will allow the student to use the credentials of MLT (ASCP)CM after their name.

For more information on what you can do with this major, visit Career Services' [What to Do with a Major?](#) resource.

All CMU/WCCC 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. (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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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:

- 75 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
<b>Communication</b>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b>		
MATH 113	College Algebra-GTMA1	4
<b>Other Essential Learning Core Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>16</b>

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one KINA Activity course		1
<b>Total Semester Credit Hours</b>		<b>2</b>

## Program Specific Degree Requirements

(57 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 102, MLTP 180, MLTP 182, MLTP 250, and MLTP 252.)

Code	Title	Semester Credit Hours
<b>Didactic Courses</b>		
BIOL 209	Human Anatomy and Physiology	3
BIOL 209L	Human Anatomy and Physiology Laboratory	1
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	Human Anatomy and Physiology II	3
BIOL 210L	Human Anatomy and Physiology II Laboratory	1
MLTP 101	Phlebotomy	3
MLTP 132	Clinical Hematology and Coagulation	3
MLTP 132L	Clinical Hematology and Coagulation Lab	1
MLTP 138	Clinical Immunology	2
MLTP 138L	Clinical Immunology Lab	1
MLTP 141	Clinical Immunohematology	2
MLTP 141L	Clinical Immunohematology Lab	1
MLTP 142	Clinical Microscopy	2
MLTP 142L	Clinical Microscopy Lab	1
MLTP 231	Clinical Microbiology I	3
MLTP 231L	Clinical Microbiology I Lab	1
MLTP 232	Clinical Microbiology II	3
MLTP 242	Clinical Chemistry	3
MLTP 242L	Clinical Chemistry Lab	1
MLTP 275	Capstone Seminar	1
<b>Applied Courses<sup>1</sup></b>		
MLTP 102	Applied Phlebotomy <sup>2</sup>	2
MLTP 180	Applied Immunohematology <sup>2</sup>	3
MLTP 182	Applied Hematology and Body Fluids <sup>2</sup>	4
MLTP 250	Applied Chemistry and Serology <sup>2</sup>	2
MLTP 252	Applied Microbiology <sup>2</sup>	4
MLTP 253	Certification Exam Review	1
<b>Total Semester Credit Hours</b>		<b>57</b>

<sup>1</sup> These courses may only be taken by Program Director Approval.

<sup>2</sup> Must be completed with a grade of "B" or higher.

## Suggested Course Plan

First Year		Semester Credit Hours
<b>Fall Semester</b>		
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	Human Anatomy and Physiology	3
BIOL 209L	Human Anatomy and Physiology Laboratory	1
<b>Semester Credit Hours</b>		<b>13</b>
<b>Spring Semester</b>		
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	Human Anatomy and Physiology II	3
BIOL 210L	Human Anatomy and Physiology II Laboratory	1
MLTP 101	Phlebotomy	3
MLTP 102	Applied Phlebotomy	2
<b>Semester Credit Hours</b>		<b>14</b>
<b>Summer Semester</b>		
ENGL 112	English Composition II-GTCO2	3
Essential Learning - Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
<b>Semester Credit Hours</b>		<b>6</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
Essential Learning - Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		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
<b>Semester Credit Hours</b>		<b>13</b>
<b>Spring Semester</b>		
MLTP 132 & 132L	Clinical Hematology and Coagulation and Clinical Hematology and Coagulation Lab	4
MLTP 141 & 141L	Clinical Immunohematology and Clinical Immunohematology Lab	3
MLTP 232	Clinical Microbiology II	3
MLTP 242 & 242L	Clinical Chemistry and Clinical Chemistry Lab	4
MLTP 275	Capstone Seminar	1
<b>Semester Credit Hours</b>		<b>15</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
MLTP 180	Applied Immunohematology	3
MLTP 182	Applied Hematology and Body Fluids	4
MLTP 250	Applied Chemistry and Serology	2
MLTP 252	Applied Microbiology	4
MLTP 253	Certification Exam Review	1
<b>Semester Credit Hours</b>		<b>14</b>
<b>Total Semester Credit Hours</b>		<b>75</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Medical Office Assistant Program Description

This program prepares individuals to perform routine clinical and administrative functions in health care 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 the 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

Office of Student Services

WCCC, Bishop B102  
2508 Blichmann Avenue  
970.255.2670

## Programs of Study Associates

- [Medical Office Assistant \(AAS\)](#) (p. 546)

## Certificates

- [Medical Office Assistant \(Technical Certificate\)](#) (p. 548)

## Medical Office Assistant (AAS)

Degree: Associate of Applied Science  
Major: Medical Office Assistant  
Program Code: 1396

### About This Major . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Communication</b>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
or SPCH 102	Speechmaking	
<b>Mathematics</b>		
MATH 107	Career Math (or higher)	3
<b>Other Essential Learning Core Courses</b>		
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
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### Wellness Requirement

KINE 100	Health and Wellness	1
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Select one Activity course		1
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**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
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MOAP 110	Medical Office Administration	4
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MOAP 111	Introduction to Medical Assisting	3
----------	-----------------------------------	---

MOAP 130	Medical Office Administration Insurance Billing and Coding	3
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MOAP 133	Basic Medical Sciences I	4
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MOAP 135	Basic Medical Sciences II	4
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MOAP 136	Introduction to Clinical Skills	2
----------	---------------------------------	---

MOAP 138	Medical Assisting Laboratory Skills	4
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MOAP 140	Medical Assisting Clinical Skills	4
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MOAP 147	Medical Terminology	4
----------	---------------------	---

MOAP 150	Pharmacology for Medical Assistants	3
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MOAP 183	Medical Assistant Internship	5
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MOAP 189	Review for Medical Assistant National Exam	1
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SPCH 101	Interpersonal Communications	3
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**Total Semester Credit Hours 44**

## Suggested Course Plan

### First Year

Code	Title	Semester Credit Hours
------	-------	-----------------------

ENGL 111	English Composition I-GTC01	3
----------	-----------------------------	---

Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
---	--	---

MOAP 110	Medical Office Administration	4
----------	-------------------------------	---

MOAP 111	Introduction to Medical Assisting	3
----------	-----------------------------------	---

KINE 100	Health and Wellness	1
----------	---------------------	---

KINA 1XX	Activity	1
----------	----------	---

**Semester Credit Hours 15**

### Spring Semester

ENGL 112	English Composition II-GTC02	3
----------	------------------------------	---

MATH 107	Career Math	3
----------	-------------	---

MOAP 133	Basic Medical Sciences I	4
----------	--------------------------	---

Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
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**Semester Credit Hours 13**

### Second Year

#### Fall Semester

MOAP 135	Basic Medical Sciences II	4
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MOAP 138	Medical Assisting Laboratory Skills	4
----------	-------------------------------------	---

MOAP 147	Medical Terminology	4
----------	---------------------	---

MOAP 150	Pharmacology for Medical Assistants	3
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**Semester Credit Hours 15**

#### Spring Semester

MOAP 130	Medical Office Administration Insurance Billing and Coding	3
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MOAP 136	Introduction to Clinical Skills	2
----------	---------------------------------	---

MOAP 140	Medical Assisting Clinical Skills	4
----------	-----------------------------------	---

SPCH 101	Interpersonal Communications	3
----------	------------------------------	---

**Semester Credit Hours 12**

#### Summer Semester

MOAP 183	Medical Assistant Internship	5
----------	------------------------------	---

MOAP 189	Review for Medical Assistant National Exam	1
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**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 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

# Medical Office Assistant (Technical Certificate)

Award: Technical Certificate

Program of Study: Medical Office Assistant

Program Code: 1158

## About This Program . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. Locate, gather and organize evidence on an assigned topic. (Specialized Knowledge)
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 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 Certificate Requirements

The following institutional requirements apply to all CMU or WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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	4
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		Semester Credit Hours
Fall Semester		
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 147	Medical Terminology	4
<b>Semester Credit Hours</b>		<b>17</b>
Spring Semester		
MOAP 130	Medical Office Administration Insurance Billing and Coding	3
MOAP 135	Basic Medical Sciences II	4
MOAP 138	Medical Assisting Laboratory Skills	4
MOAP 140	Medical Assisting Clinical Skills	4
MOAP 150	Pharmacology for Medical Assistants	3
<b>Semester Credit Hours</b>		<b>18</b>
Summer Semester		
MOAP 183	Medical Assistant Internship	5
MOAP 189	Review for Medical Assistant National Exam	1
<b>Semester Credit Hours</b>		<b>6</b>
<b>Total Semester Credit Hours</b>		<b>41</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## 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 21<sup>st</sup> 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 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.

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 music department website or contact the music department 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. 553)
- [Music Performance: Instrumental \(BM\)](#) (p. 559)
- [Music Performance: Keyboard \(BM\)](#) (p. 562)
- [Music Performance: Vocal \(BM\)](#) (p. 565)
- [Music with Elective Studies in Business \(BM\)](#) (p. 568)

- [Music: Commercial Music \(BA\)](#) (p. 575)
- [Music: Instrumental \(Minor\)](#) (p. 573)
- [Music: Jazz Studies \(Minor\)](#) (p. 572)
- [Music: Liberal Arts \(BA\)](#) (p. 550)
- [Music: Vocal \(Minor\)](#) (p. 574)

## Music: Liberal Arts (BA)

Degree: Bachelor of Arts  
Major: Music  
Concentration: Liberal Arts  
Program Code: 3253

### About This Major . . .

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 25 course 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. Develop and express music judgments through solo performance. (Critical Thinking)
2. Use music knowledge to formulate insights, perspectives, or demonstrate practical applications relating to other disciplines. (Specialized Knowledge)
3. Conduct research on a specialized topic in music that results in a well-organized document or oral presentation. (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.

- Some Essential Learning credits will have to be completed in the junior year.

Code	Title	Semester Credit Hours
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 110	Mathematical Investigations-GTMA1	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3

Select one Social and Behavioral Sciences course	3
<b>Fine Arts</b>	
Select one Fine Arts course	3
<b>Natural Sciences</b> <sup>2</sup>	
Select one Natural Sciences course	3
Select one Natural Sciences course with a lab	4
<b>Total Semester Credit Hours</b>	<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> One course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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 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 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
<b>Total Semester Credit Hours</b>		<b>23</b>

## Program Specific Degree Requirements

(35 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 101	Concert Attendance	0
MUSA 250	Beginning Conducting	2
Select one of the following: 3		
MUSA 302	Keyboard Literature I	
MUSA 303	Symphonic Literature	
MUSA 304	Keyboard Literature II	
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
<b>Upper Division Music Electives</b>		
Select from any 300- or 400-level MUSA, MUSL, or MUSP courses 5		
<b>Foreign Language</b>		
Two consecutive courses in the same foreign language <sup>1</sup> 6		
<b>Total Semester Credit Hours</b>		<b>35</b>

<sup>1</sup> Must receive a grade of "C" or better. FLAS 114 and FLAS 115 will NOT fulfill this requirement.

## 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 semester hours, at least 15 upper division hours will be needed.

Code	Title	Semester Credit Hours
Select electives		25
<b>Total Semester Credit Hours</b>		<b>25</b>

## Suggested Course Plan

First Year		Semester Credit Hours
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>14</b>
<b>Spring Semester</b>		
MUSA 101	Concert Attendance	0
MUSA 115	Theory II-Diatonic Concepts	3
MUSA 117	Ear Training and Sightsinging II	2
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
<b>Semester Credit Hours</b>		<b>14</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
MUSA 101	Concert Attendance	0
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
MUSA 101	Concert Attendance	0
MUSA 215	Theory IV - Twentieth Century Form and Analysis (Essential Learning - Natural Science)	3
MUSL 2__	Music Lesson	1
MUSP 2__	Music Performance	1
KINA Activity		1
Essential Learning - Fine Arts		3
Essential Learning - Natural Science		3
MUSA 250	Beginning Conducting	2
General Elective		3
<b>Semester Credit Hours</b>		<b>17</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
MUSA 101	Concert Attendance	0
MUSL 3__	Music Lesson	1
MUSP 3__	Music Performance	1
Essential Learning - History		3
Foundation Course - Foreign Language		3
General Elective		3
ESSL 290	Maverick Milestone	3

ESSL 200	Essential Speech	1
Upper Division Music Elective		3
<b>Semester Credit Hours</b>		<b>18</b>
<b>Spring Semester</b>		
MUSA 101	Concert Attendance	0
Music Literature Course		3
MUSL 3__	Music Lesson	1
MUSP 3__	Music Performance	1
Foundation Course - Foreign Language		3
Select one of the following:		2-3
Upper Division Music Elective		
MUSA 426	The Music of World Cultures	
General Electives (2 courses)		6
<b>Semester Credit Hours</b>		<b>16-17</b>
<b>Fourth Year</b>		
<b>Fall Semester</b>		
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 (2 courses)		6
<b>Semester Credit Hours</b>		<b>14</b>
<b>Spring Semester</b>		
MUSA 101	Concert Attendance	0
MUSL 4__	Music Lesson	1
MUSP 4__	Music Performance	1
Select one of the following:		2-3
Upper Division Music Elective		
MUSA 426	The Music of World Cultures	
MUSA 327	Music History and Literature II	3
MUSP 420	Senior Recital/Presentation	1
General Elective		4
<b>Semester Credit Hours</b>		<b>12-13</b>
<b>Total Semester Credit Hours</b>		<b>120-122</b>

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and 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 her/his 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

### About This Major . . .

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.

Studies in music theory, history, literature, ensemble performance, and applied study give students a strong foundation on which to build a successful teaching career. Regardless of the student's area of specialization, all music education majors take classes in beginning conducting and instrumental, choral, and elementary techniques to develop the skills and knowledge needed for a rewarding career as a K-12 music educator. The combined skills and knowledge from these courses, in addition to the courses in the area of specialization, are applied during field experiences and the student teaching internship.

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 secondary licensure program. Please see the Teacher Education Admission Packet for further information on admissions criteria.

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

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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:

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. Music Education Outcome 1: Develop and express music judgments through solo performances. (Critical Thinking)
2. Music Education Outcome 2: Identify current national and state music education standards. (Specialized Knowledge)
3. Music Education Outcome 3: Demonstrate strategies associated with teaching general music curricula. (Specialized Knowledge)
4. Music Education Outcome 4: Conduct research on a specialized topic in music that results in a well-organized document or oral presentation. (Communication Fluency)
5. Music Education Outcome 5: Demonstrate teaching techniques in an instrumental or vocal setting. (Specialized Knowledge)
6. 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)
7. Teacher Education Outcome 2: Design and establish a safe, inclusive, and respectful learning environment for a diverse population of students. (Specialized Knowledge/Applied Learning)
8. Teacher Education Outcome 3: Plan and deliver effective instruction to students, based on research-based pedagogical practices. (Communication Literacy/Information Literacy)
9. Teacher Education Outcome 4: Collect and analyze student assessment data and use results to inform planning and instruction. (Quantitative Fluency)
10. 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>2</sup>		
MATH 110	Mathematical Investigations-GTMA1	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
PSYC 233	Human Growth and Development-GTSS3 <sup>3</sup>	3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>4</sup>		
Select one Natural Sciences course		3

Select one Natural Sciences course with a lab	4
<b>Total Semester Credit Hours</b>	<b>31</b>

- <sup>1</sup> Must receive a grade of "B" or better and must be completed by the time the student has 60 semester hours.
- <sup>2</sup> Must receive a grade of "C" or better, must be completed by the time the student has 60 semester hours.
- <sup>3</sup> Must receive a grade of "B" or better.
- <sup>4</sup> One course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity Course		1
<b>Essential Learning Capstone <sup>1</sup></b>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

- <sup>1</sup> 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 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 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
<b>Total Semester Credit Hours</b>		<b>23</b>

## Program Specific Degree Requirements

(66 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 must meet departmental recital/concert attendance requirements.

- Students deficient in piano skills will be required to complete MUSA 130 (2), MUSA 131 (2), MUSA 230 (2), MUSA 231 (2), in the first two years.

Code	Title	Semester Credit Hours
<b>Music Core <sup>1</sup></b>		
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 101	Concert Attendance	0
MUSA 250	Beginning Conducting	2
MUSA 268	Beginning Jazz Improvisation (This 1 hour requirement is for Instrumental and Keyboard students only.)	0-1
Select one of the following:		3
MUSA 302	Keyboard Literature I	
MUSA 303	Symphonic Literature	
MUSA 304	Keyboard Literature II	
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 426	The Music of World Cultures	2
MUSP 365	Vocal Performance Workshop (This 1 credit hour requirement is for vocal students only.)	0-1
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
<b>Total Semester Credit Hours</b>		<b>24-26</b>

Code	Title	Semester Credit Hours
<b>Music Education K-12 Requirements Option 1: Instrumental and Keyboard Focus <sup>2</sup></b>		
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 240	Introduction to Music Education (30 field experience hours)	2

MUSA 340	Teaching Elementary and General Music: Methods, Principles, and Materials (30 field experience hours)	3
Select one of the following:		2
MUSA 350A	Advanced Conducting: Choral	
MUSA 350B	Advanced Conducting: Instrumental	
MUSA 440	Teaching Vocal Music K-12: Methods, Principles, and Materials (35 field experience hours)	3
MUSA 441	Teaching Instrumental Music K-12: Methods, Principles and Materials (35 field experience hours)	3
Select one of the following:		2
MUSA 442A	Teaching Special Ensembles: Choral (30 field experience hours)	
MUSA 442B	Teaching Special Ensembles: Instrumental (30 field experience hours)	
<b>Total Semester Credit Hours</b>		<b>24</b>

Code	Title	Semester Credit Hours
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#### Music Education K-12 Requirements Option 2: Vocal Focus <sup>2</sup>

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 129	Singer's Diction I: English and Italian	1
MUSA 229	Singer's Diction II: German and French	1
MUSA 240	Introduction to Music Education (30 field experience hours)	2
MUSA 340	Teaching Elementary and General Music: Methods, Principles, and Materials (30 field experience hours)	3
Select one of the following:		2
MUSA 350A	Advanced Conducting: Choral	
MUSA 350B	Advanced Conducting: Instrumental	
MUSA 410	Vocal Pedagogy	3
MUSA 440	Teaching Vocal Music K-12: Methods, Principles, and Materials (35 field experience hours)	3
MUSA 441	Teaching Instrumental Music K-12: Methods, Principles and Materials (35 field experience hours)	3
Select one of the following:		2
MUSA 442A	Teaching Special Ensembles: Choral (30 field experience hours)	
MUSA 442B	Teaching Special Ensembles: Instrumental (30 field experience hours)	
<b>Total Semester Credit Hours</b>		<b>24</b>

Code	Title	Semester Credit Hours
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#### K-12 Licensure Requirements <sup>3,4</sup>

EDUC 115	What It Means To Be An Educator (8 field experience hours)	1
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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		
<b>Total Semester Credit Hours</b>		<b>17</b>

<sup>1</sup> While the total for this section reads 24-26, students must complete 25 hours. The variation is due to courses that differ for vocal versus instrumental and keyboard students.

<sup>2</sup> Students must select the option that aligns with their area of focus.

<sup>3</sup> Must be completed with a grade of "B" or better.

<sup>4</sup> 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

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 8-semester course sequencing

It is highly suggested to take summer and J-term courses to finish the degree in this time frame. Most students require remedial piano courses to meet their piano proficiency requirement as well.

While the total semester hours below reads 124-133, students in this program (both vocal and keyboard/instrumental) actually complete a minimum of 126 hours. This variation in the total hours count is due to differences in requirements for vocal versus instrumental and keyboard students and how specific course ranges reflect in the total count.

First Year		Semester Credit Hours
Fall Semester		
MUSA 101	Concert Attendance	0
MUSL 1__	Music Lesson	1
MUSP 1__	Music Performance	1
MUSA 114	Theory I-Introduction	3
MUSA 116	Ear Training and Sight-singing I	2
MUSA 111	Music Technology	1
ENGL 111	English Composition I-GTCO1	3
KINE 100	Health and Wellness	1
PSYC 233	Human Growth and Development-GTSS3	3
Essential Learning - Natural Science		3
<b>Semester Credit Hours</b>		<b>18</b>
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 Sight-singing II	2
ENGL 112	English Composition II-GTCO2	3
KINA Activity		1

Essential Learning - Social and Behavioral Sciences	3
<b>Semester Credit Hours</b>	<b>14</b>

**Second Year****Fall Semester**

MUSA 101	Concert Attendance	0
MUSL 2__	Music Lesson	1
MUSP 2__	Music Performance	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 (for instrumental and keyboard students only)	0-1
MATH 110	Mathematical Investigations-GTMA1	3
Essential Learning - Natural Science with Lab		4
Essential Learning - Fine Arts		3

<b>Semester Credit Hours</b>	<b>19-20</b>
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**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
Essential Learning - Humanities		3
MUSA 234 or MUSA 235	Brass Techniques and Materials or Percussion Techniques and Materials	2
MUSA 250	Beginning Conducting	2
MUSA 3__	Symphonic, Keyboard, OR Choral Literature	3
MUSA 4__	Instrumental or Vocal Methods K-12	3
EDUC 115	What It Means To Be An Educator	1
EDUC 215	Teaching as a Profession	1

<b>Semester Credit Hours</b>	<b>20</b>
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**Third Year****Fall Semester**

MUSA 101	Concert Attendance	0
MUSA 129	Singer's Diction I: English and Italian (for vocal students only)	1
MUSL 3__	Music Lesson	1
MUSP 3__	Music Performance	1
MUSA 233 or MUSA 232	Woodwind Techniques and Materials (Instrumental and Keyboard students only) or String Techniques and Materials	0-2
Select one of the following:		2-3

MUSA 340	Teaching Elementary and General Music: Methods, Principles, and Materials	
MUSA 442A	Teaching Special Ensembles: Choral	
MUSA 442B	Teaching Special Ensembles: Instrumental	
MUSA 350A or MUSA 350B	Advanced Conducting: Choral or Advanced Conducting: Instrumental	2
MUSA 326	Music History and Literature I	3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1

<b>Semester Credit Hours</b>	<b>14-17</b>
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**Spring Semester**

MUSA 101	Concert Attendance	0
MUSA 229	Singer's Diction II: German and French (for vocal students only)	1
MUSL 3__	Music Lesson	1
MUSP 3__	Music Performance	1
MUSA 235 or MUSA 234	Percussion Techniques and Materials (Instrumental and Keyboard students only) or Brass Techniques and Materials	0-2
MUSA 426	The Music of World Cultures	2
MUSA 327	Music History and Literature II	3
MUSA 4__	Instrumental OR Vocal Methods	3

MUSA 410	Vocal Pedagogy	3
EDUC 343	Teaching to Diversity	3

<b>Semester Credit Hours</b>	<b>17-19</b>
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**Fourth Year****Fall Semester**

MUSA 101	Concert Attendance	0
MUSL 4__	Music Lesson	1
MUSP 4__	Music Performance	1
Essential Learning - History		3
MUSA 317	Applied Orchestration and Arranging	2
MUSA 137	Class Voice (Instrumental and Keyboard students only)	0-1
Select one of the following: (may only earn credit for 340 once and for 442A or 442B once)		2-3

MUSA 442A	Teaching Special Ensembles: Choral	
MUSA 442B	Teaching Special Ensembles: Instrumental	
MUSA 340	Teaching Elementary and General Music: Methods, Principles, and Materials	
MUSP 420	Senior Recital/Presentation	1
MUSP 365 or MUSP 465	Vocal Performance Workshop (Vocal students only) or Opera Scenes	0-1

<b>Semester Credit Hours</b>	<b>10-13</b>
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**Spring Semester**

MUSA 101	Concert Attendance	0
EDUC 499D	Teaching Internship and Colloquia: Elementary for K-12	6
EDUC 499H	Teaching Internship and Colloquia: Secondary for K-12	6

<b>Semester Credit Hours</b>	<b>12</b>
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<b>Total Semester Credit Hours</b>	<b>124-133</b>
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## Suggested 9-semester course sequencing

It is highly suggested to take summer and J-term courses to finish the degree in this time frame. Most students require remedial piano courses to meet their piano proficiency requirement as well.

While the total semester hours below reads 123-135, students in this program (both vocal and keyboard/instrumental) actually complete a minimum of 126 hours. This variation in the total hours count is due to differences in requirements for vocal versus instrumental and keyboard students and how specific course ranges reflect in the total count.

**First Year****Fall Semester**

		<b>Semester Credit Hours</b>
MUSA 101	Concert Attendance	0
MUSL 1__	Music Lesson	1
MUSP 1__	Music Performance	1
MUSA 114	Theory I-Introduction	3
MUSA 116	Ear Training and Sightsinging I	2
MUSA 111	Music Technology	1
ENGL 111	English Composition I-GTCO1	3
KINE 100	Health and Wellness	1
Essential Learning - Natural Science		3

<b>Semester Credit Hours</b>	<b>15</b>
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**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
ENGL 112	English Composition II-GTCO2	3
PSYC 233	Human Growth and Development-GTSS3	3

KINA Activity		1
<b>Semester Credit Hours</b>		<b>14</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
MUSA 101	Concert Attendance	0
MUSL 2__	Music Lesson	1
MUSP 2__	Music Performance	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 (for instrumental and keyboard students only)	0-1
MATH 110	Mathematical Investigations-GTMA1	3
Essential Learning - Natural Science with Lab		4
Essential Learning - Fine Arts		3
<b>Semester Credit Hours</b>		<b>19-20</b>

<b>Spring Semester</b>		
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
Essential Learning - Humanities		3
MUSA 234 or MUSA 235	Brass Techniques and Materials or Percussion Techniques and Materials	2
MUSA 250	Beginning Conducting	2
EDUC 115	What It Means To Be An Educator	1
EDUC 215	Teaching as a Profession	1
<b>Semester Credit Hours</b>		<b>14</b>

<b>Third Year</b>		
<b>Fall Semester</b>		
MUSA 101	Concert Attendance	0
MUSL 3__	Music Lesson	1
MUSP 3__	Music Performance	1
MUSA 233 or MUSA 232	Woodwind Techniques and Materials (Instrumental and Keyboard students only) or String Techniques and Materials	0-2
Essential Learning - Social and Behavioral Sciences		3
MUSA 350A or MUSA 350B	Advanced Conducting: Choral or Advanced Conducting: Instrumental	2
MUSA 326	Music History and Literature I	3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Semester Credit Hours</b>		<b>14-16</b>

<b>Spring Semester</b>		
MUSA 101	Concert Attendance	0
MUSL 3__	Music Lesson	1
MUSP 3__	Music Performance	1
MUSA 235 or MUSA 234	Percussion Techniques and Materials (Instrumental and Keyboard students only) or Brass Techniques and Materials	0-2
MUSA 426	The Music of World Cultures	2
MUSA 327	Music History and Literature II	3
MUSA 4__	Instrumental OR Vocal Methods	3
EDUC 343	Teaching to Diversity	3
<b>Semester Credit Hours</b>		<b>13-15</b>

<b>Fourth Year</b>		
<b>Fall Semester</b>		
MUSA 101	Concert Attendance	0
MUSA 129	Singer's Diction I: English and Italian (for vocal students only)	1
MUSL 4__	Music Lesson	1
MUSP 4__	Music Performance	1

Essential Learning - History		3
MUSA 317	Applied Orchestration and Arranging	2
MUSA 137	Class Voice (Instrumental and Keyboard students only)	0-1
Select one of the following: (may only earn credit for 340 once and for 442A or 442B once)		2-3
MUSA 340	Teaching Elementary and General Music: Methods, Principles, and Materials	
MUSA 442A	Teaching Special Ensembles: Choral	
MUSA 442B	Teaching Special Ensembles: Instrumental	
Select one of the following: (may only earn credit for 340 once and for 442A or 442B once)		2-3
MUSA 340	Teaching Elementary and General Music: Methods, Principles, and Materials	
MUSA 442A	Teaching Special Ensembles: Choral	
MUSA 442B	Teaching Special Ensembles: Instrumental	
MUSP 365 or MUSP 465	Vocal Performance Workshop (Vocal students only) or Opera Scenes	0-1
<b>Semester Credit Hours</b>		<b>12-16</b>

<b>Spring Semester</b>		
MUSA 101	Concert Attendance	0
MUSA 229	Singer's Diction II: German and French (for vocal students only)	1
MUSL 4__	Music Lesson	1
MUSP 4__	Music Performance	1
MUSA 3__	Symphonic, Keyboard, OR Choral Literature	3
MUSA 4__	Instrumental or Vocal Methods K-12	3
MUSA 410	Vocal Pedagogy (Vocal students only)	0-3
MUSP 420	Senior Recital/Presentation	1
<b>Semester Credit Hours</b>		<b>10-13</b>

<b>Fifth Year</b>		
<b>Fall Semester</b>		
EDUC 499D	Teaching Internship and Colloquia: Elementary for K-12	6
EDUC 499H	Teaching Internship and Colloquia: Secondary for K-12	6
<b>Semester Credit Hours</b>		<b>12</b>
<b>Total Semester Credit Hours</b>		<b>123-135</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student’s petition for graduation is denied, it will be her/his 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

### About This Major . . .

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. Develop and express music judgments through solo performances (Critical Thinking)
2. Demonstrate knowledge of music history and music theory in oral and written presentations. (Communication Fluency)
3. Synthesize knowledge of repertory and pedagogy specific to the student’s instrument. (Specialized Knowledge)
4. Create digital portfolio, and create their own marketing and/or business brand that reflects current trends in the music profession. (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
<b>English<sup>1</sup></b>		
ENGL 111	English Composition I-GTC01	3
ENGL 112	English Composition II-GTC02	3
<b>Mathematics<sup>1</sup></b>		
MATH 110	Mathematical Investigations-GTMA1	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences<sup>2</sup></b>		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> One course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone<sup>1</sup></b>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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
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 214	Theory III - Chromatic Concepts	3

MUSA 215	Theory IV - Twentieth Century Form and Analysis	3
MUSL 1__	Music Lesson	2
MUSL 2__	Music Lesson	2
MUSP 1__	Music Performance	1
MUSP 1__	Music Performance	1
MUSP 2__	Music Performance	1

**Total Semester Credit Hours** **24**

## Program Specific Degree Requirements

(54 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.)

- MUSP and MUSL credits may only be used once on a program sheet. Student should consult their advisor when determining the section to use these courses.
- Students deficient in piano skills will be required to complete MUSA 130, MUSA 131, MUSA 230, and MUSA 231 in the first two years. Some Essential Learning credits will have to be completed in the junior year

Code	Title	Semester Credit Hours
<b>Music Core</b>		
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 101	Concert Attendance	0
MUSA 250	Beginning Conducting	2
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
Select two of the following Music Business Electives:		4
MUSA 312	Electronic Music	
MUSA 363	Music Industry and Marketing	
MUSA 365	Entrepreneurship for Creatives	
MUSA 367	Arts Management	
MUSA 426	The Music of World Cultures	2
MUSP 320	Junior Recital	1
MUSL 1__	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 420	Senior Recital/Presentation	1
<b>Foreign Language</b>		
One course in any foreign language <sup>1</sup>		3
<b>Instrumental Performance</b>		
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
<b>Total Semester Credit Hours</b>		<b>54</b>

<sup>1</sup> Must receive a grade of "C" or better. FLAS 114 and FLAS 115 will NOT fulfill this requirement.

## 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. 5 semester hours, including 1 upper-division hour.

Code	Title	Semester Credit Hours
Select electives		5
<b>Total Semester Credit Hours</b>		<b>5</b>

## 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
<b>Semester Credit Hours</b>		<b>15</b>
Spring Semester		Semester Credit Hours
MUSA 101	Concert Attendance	0
MUSA 115	Theory II-Diatonic Concepts	3
MUSA 117	Ear Training and Sightsinging II	2
MUSL 1__	Music Lesson	2
MUSP 1__	Music Performance	1
ENGL 112	English Composition II-GTCO2	3
Essential Learning - Fine Arts		3
<b>Semester Credit Hours</b>		<b>14</b>

### Second Year

Fall Semester		Semester Credit Hours
MUSA 101	Concert Attendance	0
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
<b>Semester Credit Hours</b>		<b>17</b>
Spring Semester		Semester Credit Hours
MUSA 101	Concert Attendance	0
MUSA 215	Theory IV - Twentieth Century Form and Analysis	3
MUSA 250	Beginning Conducting	2
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
<b>Semester Credit Hours</b>		<b>16</b>

### Third Year

Fall Semester		Semester Credit Hours
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
Foundation Course - Foreign Language		3
Music Business Elective		2
Restricted Electives		2
<b>Semester Credit Hours</b>		<b>17</b>
Spring Semester		Semester Credit Hours
MUSA 101	Concert Attendance	0
MUSA 303	Symphonic Literature	2-3
or MUSA 426	or The Music of World Cultures	
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
Music Business Elective		2
<b>Semester Credit Hours</b>		<b>14-15</b>

### Fourth Year

Fall Semester		Semester Credit Hours
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
<b>Semester Credit Hours</b>		<b>13</b>
Spring Semester		Semester Credit Hours
MUSA 101	Concert Attendance	0
MUSA 303	Symphonic Literature	2-3
or MUSA 426	or The Music of World Cultures	

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		4
<b>Semester Credit Hours</b>		<b>13-14</b>
<b>Total Semester Credit Hours</b>		<b>119-121</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his 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

## About This Major . . .

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 21<sup>st</sup> 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. Develop and express music judgments through solo performances (Critical Thinking)
2. Demonstrate knowledge of music history and music theory in oral and written presentations. (Communication Fluency)
3. Synthesize knowledge of repertory and pedagogy specific to the student's instrument. (Specialized Knowledge)
4. Create digital portfolio, and create their own marketing and/or business brand that reflects current trends in the music profession. (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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 110	Mathematical Investigations-GTMA1	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>2</sup>		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> One course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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 "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 214	Theory III - Chromatic Concepts	3
MUSA 215	Theory IV - Twentieth Century Form and Analysis	3
MUSL 1__	Music Lesson	2
MUSL 2__	Music Lesson	2
MUSP 1__	Music Performance	1
MUSP 1__	Music Performance	1
MUSP 2__	Music Performance	1
<b>Total Semester Credit Hours</b>		<b>24</b>

## Program Specific Degree Requirements

(56 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.)

- MUSP and MUSL credits may only be used once on a program sheet. Student should consult their advisor when determining the section to use these courses.
- Students deficient in piano skills will be required to complete MUSA 130, MUSA 131, MUSA 230, and MUSA 231 in the first two years. Some Essential Learning credits will have to be completed in the junior year.

Code	Title	Semester Credit Hours
<b>Music Core</b>		
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	2
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
Select two of the following Music Business Electives:		4
MUSA 312	Electronic Music	
MUSA 363	Music Industry and Marketing	
MUSA 365	Entrepreneurship for Creatives	
MUSA 367	Arts Management	
MUSA 426	The Music of World Cultures	2
MUSP 320	Junior Recital	1
MUSL 1__	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 420	Senior Recital/Presentation	1
<b>Foreign Language</b>		
One courses in the foreign language <sup>1</sup>		3
<b>Keyboard Performance</b>		
MUSA 302	Keyboard Literature I	3
MUSA 304	Keyboard Literature II	3
MUSA 310	Accompanying Techniques	2
MUSA 411	Piano Pedagogy	3
Select 3 semester hours from Fine and Performing Arts, must be outside of the concentration		3
<b>Total Semester Credit Hours</b>		<b>56</b>

<sup>1</sup> Must receive a grade of "C" or better. FLAS 114 and FLAS 115 will NOT fulfill this requirement.

## 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
<b>Total Semester Credit Hours</b>		<b>3</b>

## Suggested Course Plan

First Year	Semester Credit Hours	
<b>Fall Semester</b>		
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	2
MUSP 1__	Music Performance	1
MATH 110	Mathematical Investigations-GTMA1	3
ENGL 111	English Composition I-GTCO1	3
<b>Semester Credit Hours</b>	<b>15</b>	
<b>Spring Semester</b>		
MUSA 101	Concert Attendance	0
MUSA 115	Theory II-Diatonic Concepts	3
MUSA 117	Ear Training and Sightsinging II	2
MUSL 1__	Music Lesson	2
MUSP 1__	Music Performance	1
ENGL 112	English Composition II-GTCO2	3
Essential Learning - Fine Arts		3
<b>Semester Credit Hours</b>	<b>14</b>	
<b>Second Year</b>		
<b>Fall Semester</b>		
MUSA 101	Concert Attendance	0
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 - Natural Science with Lab		4
Essential Learning - History		3
General Elective		3
<b>Semester Credit Hours</b>	<b>18</b>	
<b>Spring Semester</b>		
MUSA 101	Concert Attendance	0
MUSA 215	Theory IV - Twentieth Century Form and Analysis	3
MUSL 2__	Music Lesson	2
MUSP 2__	Music Performance	1
MUSA 250	Beginning Conducting	2
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Essential Learning - Humanities		3
<b>Semester Credit Hours</b>	<b>15</b>	
<b>Third Year</b>		
<b>Fall Semester</b>		
MUSA 101	Concert Attendance	0
MUSA 268	Beginning Jazz Improvisation	1
MUSA 326	Music History and Literature I	3
MUSA 411	Piano Pedagogy	3
MUSL 3__	Music Lesson	2
MUSP 3__	Music Performance	1
Music Business Elective		2

Foundation Course - Foreign Language	3
<b>Semester Credit Hours</b>	<b>15</b>
<b>Spring Semester</b>	
MUSA 101 Concert Attendance	0
MUSA 310 Accompanying Techniques	2
MUSP 320 Junior Recital	1
MUSA 327 Music History and Literature II	3
MUSL 3__ Music Lesson	2
MUSP 3__ Music Performance	1
Music Business Elective	2
Essential Learning - Social and Behavioral Sciences	3
<b>Semester Credit Hours</b>	<b>14</b>
<b>Fourth Year</b>	
<b>Fall Semester</b>	
MUSA 101 Concert Attendance	0
MUSA 317 Applied Orchestration and Arranging	2
MUSA 302 Keyboard Literature I	3
MUSA 311 Advanced Music Technology	2
MUSL 4__ Music Lesson	2
MUSP 4__ Music Performance	1
Essential Learning - Social and Behavioral Sciences	3
Fine Arts Elective	3
<b>Semester Credit Hours</b>	<b>16</b>
<b>Spring Semester</b>	
MUSA 101 Concert Attendance	0
MUSA 304 Keyboard Literature II	3
MUSP 420 Senior Recital/Presentation	1
MUSL 4__ Music Lesson	2
MUSP 4__ Music Performance	1
MUSA 426 The Music of World Cultures	2
Essential Learning - Natural Science	3
KINA Activity	1
<b>Semester Credit Hours</b>	<b>13</b>
<b>Total Semester Credit Hours</b>	<b>120</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his 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

## About This Major . . .

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 21<sup>st</sup> 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. Develop and express music judgments through solo performances (Critical Thinking)
2. Demonstrate knowledge of music history and music theory in oral and written presentations. (Communication Fluency)
3. Synthesize knowledge of repertory and pedagogy specific to the student's instrument. (Specialized Knowledge)
4. Create digital portfolio, and create their own marketing and/or business brand that reflects current trends in the music profession. (Communication Fluency)
5. Identify ethical and social challenges in the music industry. (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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTC01	3
ENGL 112	English Composition II-GTC02	3
<b>Mathematics</b> <sup>1</sup>		
MATH 110	Mathematical Investigations-GTMA1	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>2</sup>		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> One course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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 129	Singer's Diction I: English and Italian	1

MUSA 214	Theory III - Chromatic Concepts	3
MUSA 215	Theory IV - Twentieth Century Form and Analysis	3
MUSA 229	Singer's Diction II: German and French	1
MUSL 1__	Music Lesson	2
MUSL 2__	Music Lesson	2
MUSP 1__	Music Performance	1
MUSP 1__	Music Performance	1
MUSP 2__	Music Performance	1
<b>Total Semester Credit Hours</b>		<b>26</b>

## Program Specific Degree Requirements

(56 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.)

- MUSP and MUSL credits may only be used once on a program sheet. Student should consult their advisor when determining the section to use these courses.
- Students deficient in piano skills will be required to complete MUSA 130, MUSA 131, MUSA 230, and MUSA 231 in the first two years. Some Essential Learning credits will have to be completed in the junior year.

Code	Title	Semester Credit Hours
<b>Music Core</b>		
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 101	Concert Attendance	0
MUSA 250	Beginning Conducting	2
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
Select two of the following Music Business Electives:		4
MUSA 312	Electronic Music	
MUSA 363	Music Industry and Marketing	
MUSA 365	Entrepreneurship for Creatives	
MUSA 367	Arts Management	
MUSA 426	The Music of World Cultures	2
MUSP 320	Junior Recital	1
MUSL 1__	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 420	Senior Recital/Presentation	1
<b>Foreign Language</b>		
One courses in the foreign language <sup>1</sup>		3
<b>Vocal Performance</b>		
MUSA 318	Vocal Literature	3
MUSA 410	Vocal Pedagogy	3
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	
<b>Total Semester Credit Hours</b>		<b>55</b>

<sup>1</sup> Must receive a grade of "C" or better. FLAS 114 and FLAS 115 will not fulfill this requirement.

## 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
Select electives		2
<b>Total Semester Credit Hours</b>		<b>2</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
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-GTC01	3
MATH 110	Mathematical Investigations-GTMA1	3
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
MUSA 101	Concert Attendance	0



MUSA 115	Theory II-Diatonic Concepts	3
MUSA 117	Ear Training and Sight-singing II	2
MUSL 1__	Music Lesson	2
MUSP 1__	Music Performance	1
MUSA 229	Singer's Diction II: German and French	1
THEA 153	Acting I: Beginning Acting	3
ENGL 112	English Composition II-GTCO2	3
<b>Semester Credit Hours</b>		<b>15</b>

**Second Year****Fall Semester**

MUSA 101	Concert Attendance	0
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 a lab		4
Essential Learning - History		3
<b>Semester Credit Hours</b>		<b>14</b>

**Spring Semester**

MUSA 101	Concert Attendance	0
MUSA 215	Theory IV - Twentieth Century Form and Analysis	3
MUSL 2__	Music Lesson	2
MUSP 2__	Music Performance	1
MUSA 250	Beginning Conducting	2
KINE 100	Health and Wellness	1
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Essential Learning - Natural Science		3
KINA Activity		1
<b>Semester Credit Hours</b>		<b>17</b>

**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 3__	Music Lesson	2
MUSP 3__	Music Performance	1
Music Business Elective		2
MUSA 311	Advanced Music Technology	2
Foundation Course - Foreign Language		3
<b>Semester Credit Hours</b>		<b>16</b>

**Spring Semester**

MUSA 101	Concert Attendance	0
MUSA 318	Vocal Literature	3
MUSA 327	Music History and Literature II	3
MUSP 365	Vocal Performance Workshop	1
MUSL 3__	Music Lesson	2
MUSP 3__	Music Performance	1
MUSP 320	Junior Recital	1
Music Business Elective		2
Essential Learning Fine Arts		3
<b>Semester Credit Hours</b>		<b>16</b>

**Fourth Year****Fall Semester**

MUSA 101	Concert Attendance	0
MUSL 4__	Music Lesson	2
MUSP 4__	Music Performance	1
MUSA 410	Vocal Pedagogy	3
MUSP 465	Opera Scenes	1
Essential Learning - Social and Behavioral Sciences		3

General Elective	2
Restricted Elective	1

**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**

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his 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

## About This Major . . .

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. Develop and express music judgments through solo performances. (Critical Thinking)
2. Create materials for effective marketing in the arts field. (Communication Fluency)
3. Apply music industry concepts to an approved capstone, which may consist of a senior presentation and/or recital. (Applied Learning)
4. Produce digital audio projects through multi-track recording, sequencing and editing using industry standard software. (Applied Learning)
5. Identify ethical and social challenges in the music industry. (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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTC01	3
ENGL 112	English Composition II-GTC02	3
<b>Mathematics</b> <sup>1</sup>		
MATH 110	Mathematical Investigations-GTMA1 (or higher)	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
ECON 201	Principles of Macroeconomics-GTSS1	3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		

MUSA 266	History of Popular Music-GTAH1	3
<b>Natural Sciences</b> <sup>2</sup>		
Select one Natural Sciences course with a lab		4
Select one Natural Sciences course		3
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> One course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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 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 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
<b>Total Semester Credit Hours</b>		<b>23</b>

## Program Specific Degree Requirements

(54 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 deficient in piano skills will be required to complete MUSA 130 (2), MUSA 131 (2), MUSA 230 (2), MUSA 231 (2), in the first two years.

Code	Title	Semester Credit Hours
<b>Music Core</b>		
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 268	Beginning Jazz Improvisation	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
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 only)	
MUSA 368	Advanced Jazz Improvisation (for instrumental students only)	
<b>Music Electives</b>		
Select 3 Upper Division (300-400 level) semester hours from any MUSA, MUSL, or MUSP course		3
<b>Business Core</b>		
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): <sup>1</sup>		15
ACCT 201	Principles of Financial Accounting	
ENR 300	Small Business and Entrepreneurship	
ENR 343	Exploring Entrepreneur Opportunities	
ENR 401	Entrepreneurial Finance	
FINA 301	Managerial Finance	
MANG 201	Principles of Management	

MARK 231 Principles of Marketing

**Total Semester Credit Hours 54**

<sup>1</sup> 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. 6 semester hours.

Code	Title	Semester Credit Hours
Select electives		6
<b>Total Semester Credit Hours</b>		<b>6</b>

## Suggested Course Plan

While the total semester hours below reads 118-123, students must complete a minimum of 120 hours for this degree. This variation is due to different options for vocal and instrumental student, 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		Semester Credit Hours
Fall Semester		
MUSA 101	Concert Attendance	0
MUSL 1__	Music Lesson	1
MUSP 1__	Music Performance	1
MUSA 114	Theory I-Introduction	3
MUSA 116	Ear Training and Sightsinging I	2
MUSA 111	Music Technology	1
MUSA 129	Singer's Diction I: English and Italian (for vocal students only) <sup>1</sup>	0-1
ENGL 111	English Composition I-GTC01	3
KINA Activity		1
Essential Learning - Humanities		3
<b>Semester Credit Hours</b>		<b>15-16</b>
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 229	Singer's Diction II: German and French (for vocal students only) <sup>1</sup>	0-1
ENGL 112	English Composition II-GTC02	3
Essential Learning - Natural Science		3
Essential Learning - Social and Behavioral Science		3
<b>Semester Credit Hours</b>		<b>16-17</b>
Second Year		
Fall Semester		
MUSA 101	Concert Attendance	0
MUSL 2__	Music Lesson	1
MUSP 2__	Music Performance	1
MUSA 214	Theory III - Chromatic Concepts	3
ECON 201	Principles of Macroeconomics-GTSS1	3

MUSA 268	Beginning Jazz Improvisation	1
MATH 110	Mathematical Investigations-GTMA1	3
KINE 100	Health and Wellness	1
General Elective		3

**Semester Credit Hours 16**

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 266	History of Popular Music-GTAH1	3
Restricted Business Elective		3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1

**Semester Credit Hours 15**

Third Year		
Fall Semester		
MUSA 101	Concert Attendance	0
MUSL 3__	Music Lesson	1
MUSP 3__	Music Performance	1
MUSA 311	Advanced Music Technology	2
MUSA 317	Applied Orchestration and Arranging	2
MUSA 363	Music Industry and Marketing	2
Restricted Business Elective		3
Complete one of the following: <sup>2</sup>		3
MUSA 326	Music History and Literature I	
Music Elective		

**Semester Credit Hours 14**

Spring Semester		
MUSA 101	Concert Attendance	0
MUSL 3__	Music Lesson	1
MUSP 3__	Music Performance	1
Restricted Business Elective		3
MUSA 365	Entrepreneurship for Creatives	2
MUSA 368	Advanced Jazz Improvisation (for instrumental students only) <sup>1</sup>	0-2
BUGB 231	Survey of Business Law	3
Complete one of the following: <sup>2</sup>		3
MUSA 327	Music History and Literature II	
Music Elective (upper division)		

**Semester Credit Hours 13-15**

Fourth Year		
Fall Semester		
MUSA 101	Concert Attendance	0
MUSL 4__	Music Lesson	1
MUSP 4__	Music Performance	1
MUSA 312	Electronic Music	2
MUSA 367	Arts Management	2
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
Restricted Business Elective		3
General Electives		3
MUSA 499	Internship	4
MUSA 426	The Music of World Cultures	2

**Semester Credit Hours 12**

**Total Semester Credit Hours 118-122**

<sup>1</sup> Students only need to complete MUSA 129, MUSA 229, or MUSA 368. MUSA 129 and MUSA 229 are options for vocal students, and MUSA 368 is an option for instrumental students. For semesters in which these courses are listed, MUSA 129, MUSA 229, or MUSA 368 only need to be taken if two of the other options are not in the student's plan for progress to degree. This results in variation in hours suggested for enrollment for these semesters.

<sup>2</sup> 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 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Music: Jazz Studies (Minor)

Minor: Jazz Studies  
Program Code: M213

## About This Minor. . .

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 or MUSA 266	Jazz History and Literature History of Popular Music-GTAH1	3
MUSA 268	Beginning Jazz Improvisation	1
Select 2 semester hours of any Music Elective (MUSA, MUSL or MUSP)		
Six semester hours selected from Applied Jazz Lessons: <sup>1</sup>		
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):		
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	
<b>Total Semester Credit Hours</b>		<b>18</b>

<sup>1</sup> 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 her/his 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 her/his responsibility to consult the Registrar's Office regarding next steps.

## Music: Instrumental (Minor)

Minor: Music - Instrumental  
Program Code: M210

### About This Minor. . .

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 or MUSA 114	Fundamentals of Theory Theory I-Introduction	3
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 <sup>1</sup>		1
MUSx <sup>1</sup>		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__ <sup>1</sup>		1
MUSL 3__ <sup>1</sup>		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__ <sup>1</sup>		1
MUSP 3__ <sup>1</sup>		1
<b>Total Semester Credit Hours</b>		<b>23</b>

<sup>1</sup> 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 her/his 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 her/his responsibility to consult the Registrar's Office regarding next steps.

## Music: Vocal (Minor)

Minor: Music - Vocal  
Program Code: M211

### About This Minor. . .

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

(24 semester hours)

Code	Title	Semester Credit Hours
MUSA 113 or MUSA 114	Fundamentals of Theory Theory I-Introduction	3
MUSA 116	Ear Training and Sightsinging I	2
MUSA 129	Singer's Diction I: English and Italian	1
MUSA 130	Class Piano I	2
MUSL 137	Voice <sup>1</sup>	1
MUSL 137	Voice <sup>1</sup>	1
MUSL 237	Voice <sup>2</sup>	1
MUSL 237	Voice <sup>2</sup>	1
MUSA 410	Vocal Pedagogy	3
MUSA 318 or MUSA 319	Vocal Literature Choral Literature	3
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
<b>Total Semester Credit Hours</b>		<b>24</b>

<sup>1</sup> MUSL 137 taken twice, 1 semester hour per semester = 2 semester hours

<sup>2</sup> MUSL 237 taken twice, 1 semester hour per semester = 2 semester 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 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 her/his 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 her/his 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

## About This Major . . .

The Bachelor of Arts in Music: Liberal Arts (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. Develop and express music judgments through solo performance. (Critical Thinking)
2. Use music knowledge to formulate insights, perspectives, or demonstrate practical applications relating to other disciplines. (Specialized Knowledge)
3. Conduct research on a specialized topic in music that results in a well-organized document or oral presentation. (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.

- Some Essential Learning credits will have to be completed in the junior year.

Code	Title	Semester Credit Hours
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 110	Mathematical Investigations-GTMA1	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>2</sup>		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> One course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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 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 214	Theory III - Chromatic Concepts	3
MUSA 215	Theory IV - Twentieth Century Form and Analysis	3
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
<b>Total Semester Credit Hours</b>		<b>23</b>

## Program Specific Degree Requirements

(50 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	2
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	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 238	Composition	1
MUSL 338	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
<b>Upper Division Music Electives</b>		
Select from any 300- or 400-level MUSA, MUSL, or MUSP courses		5
<b>Foreign Language</b>		
Two consecutive courses in the same foreign language <sup>1</sup>		6
<b>Total Semester Credit Hours</b>		<b>50</b>

<sup>1</sup> Must receive a grade of "C" or better. FLAS 114 and FLAS 115 will NOT fulfill this requirement.

## 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. 10 semester hours, including 9 semester hours of upper division may be needed.

Code	Title	Semester Credit Hours
Select electives		10
(9 elective hours must be Upper Division)		
<b>Total Semester Credit Hours</b>		<b>10</b>

## Suggested Course Plan

Code	Title	Semester Credit Hours
<b>First Year</b>		
<b>Fall Semester</b>		
MUSA 101	Concert Attendance	0
MUSA 114	Theory I-Introduction	3
MUSA 116	Ear Training and Sight-singing I	2
MUSA 111	Music Technology	1
MUSL 139	Jazz/Commercial	1
MUSP 162	Commercial Ensemble	1
ENGL 111	English Composition I-GTC01	3
Essential Learning - Social and Behavioral Science		3
<b>Semester Credit Hours</b>		<b>14</b>
<b>Spring Semester</b>		
MUSA 101	Concert Attendance	0
MUSA 115	Theory II-Diatonic Concepts	3
MUSA 117	Ear Training and Sight-singing II	2
MUSL 139	Jazz/Commercial	1
MUSP 162	Commercial Ensemble	1
ENGL 112	English Composition II-GTC02	3
KINE 100	Health and Wellness	1
Essential Learning - Social and Behavioral Science		3
<b>Semester Credit Hours</b>		<b>14</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
MUSA 101	Concert Attendance	0
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	Advanced Music Technology or MUSA 312 or Electronic Music	2
MUSA 268	Beginning Jazz Improvisation	1
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
MUSA 101	Concert Attendance	0
MUSA 215	Theory IV - Twentieth Century Form and Analysis	3
MUSL 239	Jazz/Commercial	1
MUSP 262	Commercial Ensemble	1
KINA Activity		1
Essential Learning - Natural Science		3
MUSA 250	Beginning Conducting	2
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 238	Composition	1
<b>Semester Credit Hours</b>		<b>15</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
MUSA 101	Concert Attendance	0

MUSL 339	Jazz/Commercial	1
MUSP 362	Commercial Ensemble	1
MUSA 317	Applied Orchestration and Arranging	2
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
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
Foundation Course - Foreign Language		3
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
MUSA 101	Concert Attendance	0
MUSL 339	Jazz/Commercial	1
MUSP 362	Commercial Ensemble	1
Foundation Course - Foreign Language		3
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	3
Essential Learning - History		3
Essential Learning - Humanities		3
<b>Semester Credit Hours</b>		<b>16</b>
<b>Fourth Year</b>		
<b>Fall Semester</b>		
MUSA 101	Concert Attendance	0
MUSL 439	Jazz/Commercial	1
MUSP 462	Commercial Ensemble	1
MUSA 266	History of Popular Music-GTAH1	3
MUSA 363 or MUSA 367	Music Industry and Marketing or Arts Management	2
Upper Division Music Elective		2
General Electives		6
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Total Semester Credit Hours</b>		<b>120</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his 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. Special needs of the geriatric population are emphasized. Students who successfully complete this certificate qualify to take the National Nurse Aide Assessment Program (NNAAP) Examination 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 health care, 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

Office of Student Services  
WCCC, Bishop B102  
2508 Blichmann Avenue  
970.255.2670

## Programs of Study Certificates

- [Nurse Aide \(Technical Certificate\)](#) (p. 579)

### Nurse Aide (Technical Certificate)

Award: Technical Certificate  
Program of Study: Nurse Aide  
Program Code: 1602

### About This Program . . .

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 of training is required.

For more information on what you can do with this major, visit WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Total Semester Credit Hours</b>		<b>5</b>

### Suggested Course Plan

May be taken in Fall or Spring or Summer

First Year		Semester Credit Hours
Fall Semester		
NURA 101	Nurse Aide Healthcare Skills	4
NURA 170	Nurse Aide Clinical Experience	1
<b>Semester Credit Hours</b>		<b>5</b>
<b>Total Semester Credit Hours</b>		<b>5</b>

### Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## 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 care giver 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 traditional BSN program is designed for high school graduates and students without prior nursing certificates or degrees. This four-year program prepares students as professional generalist nurses who practice in a variety of health care settings. It is accredited by the CCNE and approved by the Colorado State Board of Nursing. The BSN program integrates nursing theory, practice, and science with a broad liberal arts education. It has been developed to prepare highly competent professionals with the education necessary to meet the increasing needs for quality health care in society and provides students with the foundation for graduate study in nursing. Admission to the University does not guarantee admission to the program. A separate admission application to the program is required.

The Master of Science in Nursing (MSN) program prepares nurses for roles as family nurse practitioners (FNPs) or nurse educators (NEs) in healthcare or academic settings. MSN graduates formulate clinical, administrative, 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
- BSN Program:
  - Spring and Fall applications: refer to application and checklist for deadline dates
- RN-BSN:
  - Five start dates, please see dates online
- MSN Program:
  - April 1 for fall entrance
- DNP Program:
  - April 1 for fall entrance

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. See Graduate Programs 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. 581)

## Bachelors/Minors

- [LPN to BSN, Nursing \(BSN\)](#) (p. 592)
- [Nursing \(BSN\)](#) (p. 594)
- [RN to BSN, Nursing \(BSN\)](#) (p. 597)

## Certificates

- [Practical Nursing \(Technical Certificate\)](#) (p. 600)

## Graduate

- [Adult-Gerontology Nurse Practitioner \(MSN\)](#) (p. 586)
- [Doctor of Nursing Practice - Family Nurse Practitioner \(DNP-FNP\)](#) (p. 584)
- [Family Nurse Practitioner, Nursing \(MSN\)](#) (p. 588)
- [Nurse Educator, Nursing \(MSN\)](#) (p. 590)

## Nursing (AAS)

Degree: Associate of Applied Science  
Major: Nursing  
Program Code: 1615

### About This Major...

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.

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/WCCC 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)

- Utilize health information systems to provide safe patient care throughout the health care environment. (Specialized Knowledge/ Applied Learning)
- Incorporate therapeutic communication into all interactions. (Communication Fluency)
- Incorporate evidence based practice in the application of care to provide safe quality outcomes. (Critical Thinking)
- Utilize principles of leadership and management skills in caring for patients throughout the lifespan. (Specialized Knowledge/Applied Learning)
- 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Communication</b>		
ENGL 111	English Composition I-GTC01	3
ENGL 112	English Composition II-GTC02	3
<b>Mathematics</b>		
MATH 110	Mathematical Investigations-GTMA1 (or higher)	3
<b>Other Essential Learning Core Courses</b>		
PSYC 233	Human Growth and Development-GTSS3	3
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts, or Humanities course		3
<b>Total Semester Credit Hours</b>		<b>15</b>

## Other Lower Division Requirements

(2 semester hours, must earn a grade of "C" or better in each course.)

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Total Semester Credit Hours</b>		<b>2</b>

## 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 and Human Anatomy and Physiology Laboratory	4
BIOL 210 & 210L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Laboratory	4
BIOL 241	Pathophysiology	4
<b>Total Semester Credit Hours</b>		<b>12</b>

## 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
<b>Total Semester Credit Hours</b>		<b>50</b>

## Suggested Course Plan

### First Year

#### Fall Semester

		Semester Credit Hours
ENGL 111	English Composition I-GTC01	3
MATH 110	Mathematical Investigations-GTMA1	3
Essential Learning - Social and Behavioral Sciences, Natural Science, History, Fine Arts, or Humanities		3
BIOL 209 & 209L	Human Anatomy and Physiology and Human Anatomy and Physiology Laboratory	4
KINE 100	Health and Wellness	1
KINA Activity Course		1
<b>Semester Credit Hours</b>		<b>15</b>

#### Spring Semester

ENGL 112	English Composition II-GTC02	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
<b>Semester Credit Hours</b>		<b>14</b>

### 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
<b>Semester Credit Hours</b>		<b>12</b>

#### Spring Semester

NURS 248	Adult Concepts of Health I	3
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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
<b>Semester Credit Hours</b>		<b>13</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>12</b>
<b>Spring Semester</b>		
NURS 252	Mental Health Concepts in Nursing	2
NURS 252L	Mental Health Concepts in Nursing 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
<b>Semester Credit Hours</b>		<b>13</b>
<b>Total Semester Credit Hours</b>		<b>79</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.



If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Doctor of Nursing Practice - Family Nurse Practitioner (DNP-FNP)

Degree: Doctor of Nursing Practice

Program of Study: Family Nurse Practitioner (FNP)

Program Code: 9611

### About This Program . . .

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.
- 78 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) (NONPF – Leadership, Quality, Health Delivery System) (DNP Essentials – VI, VII, VIII)
2. Compile and evaluate health care information systems to strengthen, support, or improve the health delivery system. (CMU 2) (NONPF – Scientific Foundation, Practice Inquiry) (DNP Essentials – III, IV, VIII)
3. Interpret social justice, equity, and ethical policies in health care for complex decision making for individuals and populations. (CMU 6) (NONPF – Literacy, Policies, Ethics, Independent Practice) (DNP Essentials – V, VII)
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) (NONPF – Leadership, Quality, Policies, Ethics) (DNP Essentials – I, II, V)
5. Modify complex clinical situations and health care systems through the integration and utilization of evidence-based practice to promote optimal outcomes. (CMU 3) (NONPF – Scientific Foundation, Leadership, Policies, Health Delivery System, Independent Practice) (DNP Essentials – I, II, VIII)
6. Improve the delivery of care to individuals, families, and communities through advanced nursing science. (CMU 1, 4, 5) (NONPF – Scientific Foundation, Independent Practice, Practice Inquiry, Health Delivery System), (DNP Essentials – I, VI, VII, VIII)

## Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

**To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options."** This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option 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. 81)” 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:

- 78 semester hours are required for the Doctor of Nursing Practice degree.

## Program Specific Requirements

(78 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
<b>Required Core Courses</b>		
NURS 500	Theoretical Foundations	3
NURS 501	Evidence-Based Practice	3
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	3
NURS 626	Clinical Epidemiology	3
NURS 700	Translational Evidence-Based Practice	2
<b>Advanced Nursing Practice Cognate</b>		
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 Procedures	1
NURS 588	Diagnostic Testing	1
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: Capstone	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 Information Systems in Advanced Nursing Practice	2
NURS 630	Clinical Practicum: Older Person	2
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
<b>DNP Scholarly Project</b>		
NURS 660	Doctor of Nursing Practice Scholarly Project: Identification	2
NURS 725	Doctor of Nursing Practice Scholarly Project: Development	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 78**

## Suggested Course Plan

		Semester Credit Hours
<b>First Year</b>		
<b>Fall Semester</b>		
NURS 500	Theoretical Foundations	3
NURS 501	Evidence-Based Practice	3
NURS 525	Advanced Pathophysiology	3
<b>Semester Credit Hours</b>		<b>9</b>
<b>Spring Semester</b>		
NURS 526	Advanced Pharmacology for Nursing	3
NURS 527	Advanced Health Assessment	2
NURS 577	Clinical Practicum: Advanced Health Assessment	1
<b>Semester Credit Hours</b>		<b>6</b>
<b>Summer Semester</b>		
NURS 535	Health Promotion and Disease Prevention	2
NURS 586	Clinical Procedures	1
<b>Semester Credit Hours</b>		<b>3</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>9</b>
<b>Spring Semester</b>		
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	2
<b>Semester Credit Hours</b>		<b>10</b>
<b>Summer Semester</b>		
NURS 536	Leading Through Quality, Policy, and Ethics	3
NURS 588	Diagnostic Testing	1
<b>Semester Credit Hours</b>		<b>4</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
NURS 600	Advanced Practice Nursing Issues	2
NURS 604	Primary Care of Rural and Underserved Populations: Capstone	1
NURS 640	Clinical Practicum Capstone: Primary Care of Rural and Underserved Populations	3
<b>Semester Credit Hours</b>		<b>6</b>
<b>Spring Semester</b>		
NURS 505	Advanced Quality Improvement and Leadership	3

NURS 625	Statistics for Health Sciences	3
NURS 660	Doctor of Nursing Practice Scholarly Project: Identification	2
<b>Semester Credit Hours</b>		<b>8</b>
<b>Summer Semester</b>		
NURS 627	Health Information Systems in Advanced Nursing Practice	2
<b>Semester Credit Hours</b>		<b>2</b>
<b>Fourth Year</b>		
<b>Fall Semester</b>		
NURS 626	Clinical Epidemiology	3
NURS 700	Translational Evidence-Based Practice	2
NURS 725	Doctor of Nursing Practice Scholarly Project: Development	2
<b>Semester Credit Hours</b>		<b>7</b>
<b>Spring Semester</b>		
NURS 650	Clinical Preceptorship I	3
NURS 750	Doctor of Nursing Practice Scholarly Project: Design and Defend	3
<b>Semester Credit Hours</b>		<b>6</b>
<b>Summer Semester</b>		
NURS 504	Advanced Health Policy and Ethics	2
<b>Semester Credit Hours</b>		<b>2</b>
<b>Fifth Year</b>		
<b>Fall Semester</b>		
NURS 652	Clinical Preceptorship II	3
NURS 760	Doctor of Nursing Practice Scholarly Project: Implementation and Evaluation	3
<b>Semester Credit Hours</b>		<b>6</b>
<b>Total Semester Credit Hours</b>		<b>78</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If your petition for graduation is denied, it will be your responsibility to apply for graduation in a subsequent semester. Your "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

### About This Program . . .

The Master of Science in Nursing (MSN) program Adult-Gerontology Nurse Practitioner 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 Adult-Gerontology Nurse Practitioner cognate 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 42 credit hours for the MSN in Nursing: Adult-Gerontology Nurse Practitioner degree. Students are required to complete a minimum of 600 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 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. 81)" 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:

- 42 semester hours are required for the MSN in Nursing: Adult-Gerontology Nurse Practitioner degree.

## Program Specific Degree Requirements

(42 semester hours)

Code	Title	Semester Credit Hours
<b>Required Core Courses</b>		
NURS 500	Theoretical Foundations	3
NURS 501	Evidence-Based Practice	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 536	Leading Through Quality, Policy, and Ethics	3
NURS 577	Clinical Practicum: Advanced Health Assessment	1
<b>Adult-Gerontology Nurse Practitioner Cognate</b>		
NURS 586	Clinical Procedures	1
NURS 588	Diagnostic Testing	1
NURS 600	Advanced Practice Nursing Issues	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: Capstone	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	2
NURS 640	Clinical Practicum Capstone: Primary Care of Rural and Underserved Populations	3
<b>Total Semester Credit Hours</b>		<b>42</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
NURS 500	Theoretical Foundations	3
NURS 501	Evidence-Based Practice	3
NURS 525	Advanced Pathophysiology	3
<b>Semester Credit Hours</b>		<b>9</b>
Spring Semester		
NURS 526	Advanced Pharmacology for Nursing	3
NURS 527	Advanced Health Assessment	2

NURS 577	Clinical Practicum: Advanced Health Assessment	1
<b>Semester Credit Hours</b>		<b>6</b>
<b>Summer Semester</b>		
NURS 535	Health Promotion and Disease Prevention	2
NURS 586	Clinical Procedures	1
<b>Semester Credit Hours</b>		<b>3</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
NURS 602	Primary Care of the Adult	3
NURS 605	Mental and Behavioral Health	2
NURS 615	Clinical Practicum: Mental and Behavioral Health	1
NURS 620	Clinical Practicum: Adult	3
<b>Semester Credit Hours</b>		<b>9</b>
<b>Spring Semester</b>		
NURS 603	Primary Care of the Older Person	3
NURS 630	Clinical Practicum: Older Person	2
<b>Semester Credit Hours</b>		<b>5</b>
<b>Summer Semester</b>		
NURS 536	Leading Through Quality, Policy, and Ethics	3
NURS 588	Diagnostic Testing	1
<b>Semester Credit Hours</b>		<b>4</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
NURS 600	Advanced Practice Nursing Issues	2
NURS 604	Primary Care of Rural and Underserved Populations: Capstone	1
NURS 640	Clinical Practicum Capstone: Primary Care of Rural and Underserved Populations	3
<b>Semester Credit Hours</b>		<b>6</b>
<b>Total Semester Credit Hours</b>		<b>42</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If your petition for graduation is denied, it will be your responsibility to apply for graduation in a subsequent semester. Your "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

### About This Program . . .

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 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 47 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. 81)" 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:

- 47 semester hours are required for the MSN in Nursing: Family Nurse Practitioner (FNP) degree.

## Program Specific Requirements

Code	Title	Semester Credit Hours
<b>Required Core Courses</b>		
NURS 500	Theoretical Foundations	3
NURS 501	Evidence-Based Practice	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 536	Leading Through Quality, Policy, and Ethics	3
NURS 577	Clinical Practicum: Advanced Health Assessment	1
<b>Family Nurse Practitioner Cognate</b>		
NURS 586	Clinical Procedures	1
NURS 588	Diagnostic Testing	1
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: Capstone	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	2
NURS 640	Clinical Practicum Capstone: Primary Care of Rural and Underserved Populations	3

**Total Semester Credit Hours 47**

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
NURS 500	Theoretical Foundations	3
NURS 501	Evidence-Based Practice	3
NURS 525	Advanced Pathophysiology	3
<b>Semester Credit Hours</b>		<b>9</b>
Spring Semester		
NURS 526	Advanced Pharmacology for Nursing	3
NURS 527	Advanced Health Assessment	2

NURS 577	Clinical Practicum: Advanced Health Assessment	1
<b>Semester Credit Hours</b>		<b>6</b>
<b>Summer Semester</b>		
NURS 535	Health Promotion and Disease Prevention	2
NURS 586	Clinical Procedures	1
<b>Semester Credit Hours</b>		<b>3</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
NURS 602	Primary Care of the Adult	3
NURS 605	Mental and Behavioral Health	2
NURS 615	Clinical Practicum: Mental and Behavioral Health	1
NURS 620	Clinical Practicum: Adult	3
<b>Semester Credit Hours</b>		<b>9</b>
<b>Spring Semester</b>		
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	2
<b>Semester Credit Hours</b>		<b>10</b>
<b>Summer Semester</b>		
NURS 536	Leading Through Quality, Policy, and Ethics	3
NURS 588	Diagnostic Testing	1
<b>Semester Credit Hours</b>		<b>4</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
NURS 600	Advanced Practice Nursing Issues	2
NURS 604	Primary Care of Rural and Underserved Populations: Capstone	1
NURS 640	Clinical Practicum Capstone: Primary Care of Rural and Underserved Populations	3
<b>Semester Credit Hours</b>		<b>6</b>
<b>Total Semester Credit Hours</b>		<b>47</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If your petition for graduation is denied, it will be your responsibility to apply for graduation in a subsequent semester. Your "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

### About This Program . . .

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. 81)" 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
<b>Required Core Courses</b>		
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
<b>Nurse Educator Cognate Requirements</b>		
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
<b>Other Requirements</b>		
Completion of Oral Comprehensive Exam		
NURS 560	Nurse Educator Practicum	3
NURS 565	Role Development: Nurse Educator	3
<b>Total Semester Credit Hours</b>		<b>36</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
NURS 500	Theoretical Foundations	3
NURS 501	Evidence-Based Practice	3
NURS 525	Advanced Pathophysiology	3
<b>Semester Credit Hours</b>		<b>9</b>
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
<b>Semester Credit Hours</b>		<b>9</b>
Summer Semester		
NURS 535	Health Promotion and Disease Prevention	2
NURS 536	Leading Through Quality, Policy, and Ethics	3
<b>Semester Credit Hours</b>		<b>5</b>



Second Year			
<b>Fall Semester</b>			
NURS 502	Technology for the Nurse Educator	3	
NURS 545	Curriculum Design/Evaluation	3	
NURS 545L	Curriculum Design/Evaluation Laboratory	1	
		<b>Semester Credit Hours</b>	<b>7</b>
<b>Spring Semester</b>			
NURS 560	Nurse Educator Practicum	3	
NURS 565	Role Development: Nurse Educator	3	
		<b>Semester Credit Hours</b>	<b>6</b>
<b>Total Semester Credit Hours</b>			<b>36</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If your petition for graduation is denied, it will be your responsibility to apply for graduation in a subsequent semester. Your "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

## About This Major . . .

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.

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 practice-based performance/project drawing on knowledge, skills, and attitudes specific to the discipline of nursing. (Specialized Knowledge)
2. Employ quantitative reasoning in making judgments and reaching conclusions. (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 from relevant sources to improve health among diverse populations. (Information Literacy)
6. Engage in ethical reasoning to provide optimal 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 110	Mathematical Investigations-GTMA1	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
PSYC 233	Human Growth and Development-GTSS3	3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b>		
Select one Natural Sciences course		3

Select one Natural Sciences course with a lab <sup>2</sup>	4
<b>Total Semester Credit Hours</b>	<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> Recommended: BIOL 101/BIOL 101L or BIOL 250/BIOL 250L.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1

<sup>1</sup> 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	3
BIOL 209L	Human Anatomy and Physiology 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	
<b>Total Semester Credit Hours</b>		<b>15-16</b>

## 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	Advanced Adult Health I	4
NURS 329L	Advanced Adult Health I Laboratory	3
NURS 333	Basic Concepts of Pharmacology II	2
NURS 400	Nursing Research	3
NURS 421	Population Health	3
NURS 421L	Population Health Laboratory	2
NURS 427	Mental Health	3
NURS 427L	Mental Health Laboratory	1

NURS 429	Adult Health II	3
NURS 429L	Adult Health II Laboratory	3
NURS 431	High Risk Obstetrics and Pediatrics	3
NURS 431L	High Risk Obstetrics and Pediatrics Laboratory	2
NURS 449	Leadership	2
NURS 449L	Leadership Laboratory	1
NURS 470L	Capstone Laboratory	2
<b>Total Semester Credit Hours</b>		<b>68</b>

## 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 and Human Anatomy and Physiology Laboratory	4
Essential Learning - Fine Arts		3
Essential Learning - Social and Behavioral Sciences		3
KINA Activity		1
<b>Semester Credit Hours</b>		<b>17</b>

#### 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
<b>Semester Credit Hours</b>		<b>17</b>

### Second Year

#### Fall Semester

LPN with IV certification 27 credits transfer for 2nd year		27
<b>Semester Credit Hours</b>		<b>27</b>

### 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
Essential Learning - Natural Science with Lab <sup>1</sup>		4
<b>Semester Credit Hours</b>		<b>18-19</b>

#### Spring Semester

NURS 318 & 318L	Health Assessment and Promotion and Health Assessment and Promotion Laboratory	4
NURS 329 & 329L	Advanced Adult Health I and Advanced Adult Health I Laboratory	7
NURS 333	Basic Concepts of Pharmacology II	2
NURS 400	Nursing Research	3
<b>Semester Credit Hours</b>		<b>16</b>

#### Summer Semester

NURS 421 & 421L	Population Health and Population Health Laboratory	5
NURS 427 & 427L	Mental Health and Mental Health Laboratory	4
<b>Semester Credit Hours</b>		<b>9</b>

### Fourth Year

#### Fall Semester

NURS 429 & 429L	Adult Health II and Adult Health II Laboratory	6
NURS 431 & 431L	High Risk Obstetrics and Pediatrics and High Risk Obstetrics and Pediatrics Laboratory	5
NURS 449 & 449L	Leadership and Leadership Laboratory	3
NURS 470L	Capstone Laboratory	2
<b>Semester Credit Hours</b>		<b>16</b>
<b>Total Semester Credit Hours</b>		<b>120-121</b>

<sup>1</sup> Recommended: BIOL 101/BIOL 101L or BIOL 250/BIOL 250L.

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Nursing (BSN)

Degree: Bachelor of Science in Nursing

Major: Nursing

Program Code: 3611

## About This Major . . .

The four-year Bachelor of Science in Nursing 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. The department usually receives more nursing applications than it can accept. Therefore, grades and completion of required courses are considered in the application process, as well as the score on a standardized entrance test. Colorado Mesa's BSN nursing program started in 1988 and is fully accredited. The BSN Program is approved by the Colorado State Board of Nursing and accredited by the Commission on Collegiate Nursing Education (CCNE).

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 practice-based performance/project drawing on knowledge, skills, and attitudes specific to the discipline of nursing. (Specialized Knowledge)
2. Employ quantitative reasoning in making judgments and reaching conclusions. (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 from relevant sources to improve health among diverse populations. (Information Literacy)
6. Engage in ethical reasoning to provide optimal 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 113	College Algebra-GTMA1 <sup>2</sup>	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
PSYC 150	General Psychology-GTSS3	3
PSYC 233	Human Growth and Development-GTSS3	3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b>		
Select one Natural Sciences course		3
BIOL 250	Introduction to Microbiology-GTSC1	3

BIOL 250L	Introduction to Microbiology Laboratory-GTSC1	1
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> 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
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone <sup>1</sup></b>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1

<sup>1</sup> 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	3
BIOL 209L	Human Anatomy and Physiology 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	
<b>Total Semester Credit Hours</b>		<b>15-16</b>

## 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 course pairings:		4
NURS 493 & 493L	Senior Capstone and Senior Capstone Clinical	
NURS 493A & NURS 493B II	Senior Capstone and Senior Capstone Clinical I and Senior Capstone and Senior Capstone Clinical II	
<b>Total Semester Credit Hours</b>		<b>64</b>

<sup>1</sup> 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 courses as NURS 493 and 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
<b>Total Semester Credit Hours</b>		<b>3-4</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
ENGL 111	English Composition I-GTC01	3
PSYC 150	General Psychology-GTSS3	3
KINE 100	Health and Wellness	1
Essential Learning - History		3
Essential Learning - Natural Science		3
<b>Semester Credit Hours</b>		<b>13</b>

<b>Spring Semester</b>		
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 and Human Anatomy and Physiology Laboratory	4
<b>Semester Credit Hours</b>		<b>14</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>14</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>15-16</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Fourth Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
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 493 & 493L	Senior Capstone and Senior Capstone Clinical <sup>1</sup>	4
<b>Semester Credit Hours</b>		<b>17</b>
<b>Total Semester Credit Hours</b>		<b>120-121</b>

<sup>1</sup> 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 courses as NURS 493 and 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.

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his 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

## About This Major . . .

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. Construct a practice-based performance/project drawing on knowledge, skills, and attitudes specific to the discipline of nursing. (Specialized knowledge)
2. Employ quantitative reasoning in making judgements and reaching conclusions. (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 from relevant sources to improve health among diverse populations. (Information Literacy)
6. Engage in ethical reasoning to provide optimal 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
<b>English <sup>1</sup></b>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics <sup>1</sup></b>		
MATH 110	Mathematical Investigations-GTMA1	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
PSYC 150	General Psychology-GTSS3	3
PSYC 233	Human Growth and Development-GTSS3	3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b>		
Select one Natural Sciences course with a lab <sup>2</sup>		4

Select one Natural Sciences course	3
<b>Total Semester Credit Hours</b>	<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> BIOL 250 and BIOL 250L strongly recommended.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone <sup>1</sup></b>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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	3
BIOL 209L	Human Anatomy and Physiology 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
<b>Total Semester Credit Hours</b>		<b>15</b>

## 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
<b>Core Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>31</b>

## 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
<b>Total Semester Credit Hours</b>		<b>9</b>

## 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.

<b>First Year</b>		
<b>Fall Semester</b>		
ENGL 111	English Composition I-GTCO1	3
Essential Learning - Natural Science with Lab <sup>1</sup>		4
PSYC 150	General Psychology-GTSS3	3
KINE 100	Health and Wellness	1
Essential Learning - History		3
<b>Semester Credit Hours</b>		<b>14</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>13</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
BIOL 209 & 209L	Human Anatomy and Physiology and Human Anatomy and Physiology Laboratory	4
Essential Learning - Fine Arts		3
MATH 110	Mathematical Investigations-GTMA1	3
General Elective		3
<b>Semester Credit Hours</b>		<b>13</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>15</b>



**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

<b>Semester Credit Hours</b>	<b>13</b>
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**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

<b>Semester Credit Hours</b>	<b>13</b>
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**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

<b>Semester Credit Hours</b>	<b>14</b>
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<b>Total Semester Credit Hours</b>	<b>95</b>
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<sup>1</sup> 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 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Practical Nursing (Technical Certificate)

Award: Technical Certificate

Program of Study: Practical Nursing

Program Code: 1612

### About This Program . . .

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.

For more information on what you can do with this major, visit Career Services' [What to Do with a Major?](#) resource.

All CMU/WCCC 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. Promote a therapeutic environment supporting communication across the lifespan for vulnerable and diverse populations. (Communication Fluency)\
2. Recognize changes, and responses to interventions while providing a safe environment. (Quantitative Fluency)\
3. Implement the nursing process, utilizing critical thinking by collecting patient data, identifying patient needs, reporting findings, and providing input into the plan of care. (Specialized knowledge/Applied learning)\
4. Utilize critical thinking skills in the application of the nursing process to provide safe quality care by incorporating evidence-based practice. (Critical Thinking)\
5. Organize and incorporate assessment data collaboratively (using critical thinking) to plan/revise patient care based on established nursing diagnosis, assessments, and evaluation data. (Specialized knowledge/Applied learning)\
6. Utilize data to ensure quality improvement and support of evidence-based practice. (Quantitative Fluency)\

7. Demonstrate competent nursing practice within a legal and ethical framework providing effective and individualized patient care, which respects 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Communication</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b>		
MATH 110	Mathematical Investigations-GTMA1 (or higher)	3
<b>History, Humanities, Social and Behavioral Science, Fine Arts, or Natural Science Courses</b>		
PSYC 233	Human Growth and Development-GTSS3 <sup>2</sup>	3
Select one Social and Behavioral Sciences course		3
<b>Total Semester Credit Hours</b>		<b>15</b>

- <sup>1</sup> 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.
- <sup>2</sup> 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 and Human Anatomy and Physiology 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	2
NURS 117	Obstetrics and Pediatrics	4
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
<b>Total Semester Credit Hours</b>		<b>31</b>

## Suggested Course Plan

### First Year

#### Fall Semester

		Semester Credit Hours
ENGL 111	English Composition I-GTCO1 <sup>1</sup>	3
BIOL 209	Human Anatomy and Physiology <sup>2</sup>	3
BIOL 209L	Human Anatomy and Physiology Laboratory <sup>2</sup>	1
MATH 110	Mathematical Investigations-GTMA1 (or higher)	3
Essential Learning - Social and Behavioral Sciences		3
<b>Semester Credit Hours</b>		<b>13</b>

#### Spring Semester

ENGL 112	English Composition II-GTCO2	3
BIOL 210	Human Anatomy and Physiology II <sup>2</sup>	3
BIOL 210L	Human Anatomy and Physiology II Laboratory <sup>2</sup>	1
PSYC 233	Human Growth and Development-GTSS3 <sup>3</sup>	3
BIOL 241	Pathophysiology	4
<b>Semester Credit Hours</b>		<b>14</b>

### 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	2
<b>Semester Credit Hours</b>		<b>14</b>

#### Spring Semester

NURS 109	Introduction to Mental Health	2
NURS 109L	Introduction to Mental Health Laboratory	1
NURS 117	Obstetrics and Pediatrics	4
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
<b>Semester Credit Hours</b>		<b>17</b>
<b>Total Semester Credit Hours</b>		<b>58</b>

<sup>1</sup> 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.

<sup>2</sup> BIOL 209/BIOL 209L and BIOL 210/BIOL 210L must have been completed within five years prior to applying to the nursing program.

<sup>3</sup> 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Occupational Therapy

The Master of Science in Occupational Therapy (MSOT) has received approval by Faculty Senate, the Board of Trustees, Colorado Department of Higher Education, and the Higher Learning Commission. In April 2021, the Accreditation Council for Occupational Therapy Education (ACOTE) granted Candidacy status for the program. With Candidacy status, the first class of students were admitted for studies in January 2022. A required self-study of the program will be submitted to ACOTE in November 2022, and ACOTE will vote April 2023 on whether the program will advance to the Pre-Accreditation Phase. If granted Pre-Accreditation, ACOTE will perform an onsite visit in the Summer 2023 and the decision for full accreditation would follow in August 2023. If granted full accreditation, 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.

The MS Occupational Therapy program prepares students who already hold a baccalaureate degree to become qualified occupational therapists.

The didactic portion of this program includes four terms of on-campus coursework followed by two terms 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:

A cumulative minimum grade point average (GPA) of 3.0 in undergraduate coursework and minimum 2.7 GPA for prerequisite coursework is required from an accredited university. 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.

## Contact Information

Department of Kinesiology  
Maverick Center 237B  
970.248.1635

## Programs of Study

### Graduate

- [Occupational Therapy \(MS\)](#) (p. 603)

## Occupational Therapy (MS)

Degree: Master of Science  
Major: Occupational Therapy  
Program Code: 8158

## About This Program . . .

ACOTE has granted Candidacy status as of April 2021. Pending ACOTE accreditation, 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 student wishes to practice.

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:

A cumulative minimum grade point average (GPA) of 3.0 in undergraduate coursework and minimum 2.7 GPA for prerequisite coursework is required from an accredited university. 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)

## Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

**To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options."** This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option 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. 81)” 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	3
OCCU 514	Wellness and Occupational Performance	2
OCCU 515	Occupation-Based Practice and Theory for Older Adults	4
OCCU 520	Brain, Behavior and Occupation	2
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	2
OCCU 533	Telehealth, Occupation and Modalities	2
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	2
OCCU 551	Fieldwork Level IB and Seminar	2
OCCU 552	Fieldwork Level IC and Seminar	2
OCCU 553	Fieldwork Level ID and Seminar with Inter-Professional Education	2
OCCU 554	Fieldwork Level IIA	12
OCCU 555	Fieldwork Level IIB	12
OCCU 594	Fieldwork Seminar	1
<b>Total Semester Credit Hours</b>		<b>76</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Spring Semester		
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	3
OCCU 514	Wellness and Occupational Performance	2
OCCU 515	Occupation-Based Practice and Theory for Older Adults	4
OCCU 550	Fieldwork Level IA and Seminar	2
<b>Semester Credit Hours</b>		<b>17</b>
<b>Summer Semester</b>		
OCCU 520	Brain, Behavior and Occupation	2
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	2
<b>Semester Credit Hours</b>		<b>10</b>
<b>Fall Semester</b>		
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	2
OCCU 533	Telehealth, Occupation and Modalities	2
OCCU 552	Fieldwork Level IC and Seminar	2
<b>Semester Credit Hours</b>		<b>12</b>
<b>Second Year</b>		
<b>Spring Semester</b>		
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	2
<b>Semester Credit Hours</b>		<b>12</b>
<b>Summer Semester</b>		
OCCU 554	Fieldwork Level IIA	12
<b>Semester Credit Hours</b>		<b>12</b>
<b>Fall Semester</b>		
OCCU 555	Fieldwork Level IIB	12
OCCU 594	Fieldwork Seminar	1
<b>Semester Credit Hours</b>		<b>13</b>
<b>Total Semester Credit Hours</b>		<b>76</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If your petition for graduation is denied, it will be your responsibility to apply for graduation in a subsequent semester. Your "Intent to Graduate" does not automatically move to a later graduation date.

## Outdoor Recreation Industry Studies Program Description

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.

## Contact Information

Outdoor Recreation Industry Studies  
Maverick Center (MC) 242  
970.248.2159

## Programs of Study Bachelors/Minors

- [Outdoor Recreation Industry Studies \(BS\)](#) (p. 605)
- [Outdoor Recreation Studies \(Minor\)](#) (p. 608)

## Outdoor Recreation Industry Studies (BS)

Degree: Bachelor of Science  
Major: Outdoor Recreation Industry Studies  
Program Code: 3151

## About This Major . . .

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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 113	College Algebra-GTMA1 (or higher) <sup>2</sup>	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		

Select one Humanities course	3
<b>Social and Behavioral Sciences</b>	
Select one Social and Behavioral Sciences course	3
Select one Social and Behavioral Sciences course	3
<b>Fine Arts</b>	
Select one Fine Arts course	3
<b>Natural Sciences</b>	
Select one Natural Science course	3
Select one Natural Science course with a lab <sup>3</sup>	4
<b>Total Semester Credit Hours</b>	<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> This is a 4 semester credit hour course. 3 credits apply to Essential Learning requirements and 1 credit applies as an elective credit.

<sup>3</sup> One course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirements</b>		
KINE 100	Health and Wellness	1
OREC 104	Orienteering	1
OREC 105	Backpacking	1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>7</b>

<sup>1</sup> 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

(23 semester hours)

Code	Title	Semester Credit Hours
ACCT 201	Principles of Financial Accounting	3
BUGB 211	Business Communications	3
MANG 201	Principles of Management	3
MARK 231	Principles of Marketing	3
KINE 200	Foundations of Kinesiology	3
ENVS 204 & 204L	Introduction to Ecosystem Management and Introduction to Ecosystem Management Laboratory	4
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	
Choose one of the following courses:		1
OREC 108	Stand Up Paddle Boarding	
OREC 109	Kayaking	

OREC 110	River Rafting	
<b>Total Semester Credit Hours</b>		<b>23</b>

## Program Specific Requirements

(48 semester hours)

Code	Title	Semester Credit Hours
BIOL 113	Outdoor Survival	3
ENTR 300	Small Business and Entrepreneurship	3
KINE 342	Sport Law and Recreation Risk Management	3
KINE 480	Inclusive Physical Activity	3
MARK 335	Sales and Sales Management	3
OREC 100	Leave No Trace	1
OREC 112	Rock Climbing II	1
OREC 135	Backcountry Winter Travel	1
OREC 205	Foundations of Outdoor Recreation Industry Studies	3
OREC 305	Outdoor Industry Business	3
OREC 350	Community Health and the Outdoor Recreation Industry	3
OREC 405	Outdoor Recreation Leadership, Programming, Education, and Assessment	3
OREC 499	Internship	6
POLS 488	Environmental Politics and Policy	3
Choose one of the following courses:		3
HMGT 350	Private and Commercial Recreation Systems	
HMGT 352	Public Recreation Systems	
Choose two of the following courses:		6
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	
<b>Total Semester Credit Hours</b>		<b>48</b>

## 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. 11 semester hours, including 1 credit of upper division, needed to meet graduation requirements. HMGT 496 - Resort and Recreation Management is strongly recommended.

Code	Title	Semester Credit Hours
MATH 113	College Algebra-GTMA1	1
Select electives		10
<b>Total Semester Credit Hours</b>		<b>11</b>

## Suggested Course Plan

		Semester Credit Hours
<b>First Year</b>		
<b>Fall Semester</b>		
ENGL 111	English Composition I-GTC01	3
ENVS 101	Introduction to Environmental Science-GTSC2	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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
ENGL 112	English Composition II-GTC02	3
OREC 104	Orienteering	1
OREC 105	Backpacking	1
OREC 135	Backcountry Winter Travel	1
OREC 205	Foundations of Outdoor Recreation Industry Studies	3
Essential Learning - Social and Behavior Science		3
Essential Learning - Natural Science with Lab		4
<b>Semester Credit Hours</b>		<b>16</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
BIOL 113	Outdoor Survival	3
OREC 112	Rock Climbing II	1
Essential Learning - History		3
Essential Learning - Social and Behavior Science		3
Essential Learning- Humanities		3
Choose one of the following:		1
OREC 108	Stand Up Paddle Boarding	
OREC 109	Kayaking	
OREC 110	River Rafting	
<b>Semester Credit Hours</b>		<b>14</b>
<b>Spring Semester</b>		
ACCT 201	Principles of Financial Accounting	3
ENVS 204 & 204L	Introduction to Ecosystem Management and Introduction to Ecosystem Management Laboratory	4
MANG 201	Principles of Management	3
OREC 311 or OREC 315	Avalanche Rescue Techniques and Theory or Professional Outdoor Guide	3
Essential Learning - Fine Arts		3
<b>Semester Credit Hours</b>		<b>16</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
BUGB 211	Business Communications	3
ESSL 200	Essential Speech	1
ESSL 290	Maverick Milestone	3
MARK 231	Principles of Marketing	3
OREC 312 or OREC 313	Swiftwater Rescue Techniques and Theory or Rock Climbing Instructor and Rope Rescue	3
OREC 350	Community Health and the Outdoor Recreation Industry	3
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
MARK 335	Sales and Sales Management	3
OREC 305	Outdoor Industry Business	3
POLS 488	Environmental Politics and Policy	3
STAT 200	Probability and Statistics-GTMA1	3
General Electives		3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Fourth Year</b>		
<b>Fall Semester</b>		
ENTR 300	Small Business and Entrepreneurship	3



KINE 342	Sport Law and Recreation Risk Management	3
KINE 480	Inclusive Physical Activity	3
General Electives		4
<b>Semester Credit Hours</b>		<b>13</b>
<b>Spring Semester</b>		
HMG 350 or HMG 352	Private and Commercial Recreation Systems or Public Recreation Systems	3
OREC 405	Outdoor Recreation Leadership, Programming, Education, and Assessment	3
OREC 499	Internship	6
General Electives		3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Total Semester Credit Hours</b>		<b>120</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Outdoor Recreation Studies (Minor)

Minor: Outdoor Recreation Studies  
Program Code: M111

## About This Minor. . .

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.

## Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

**To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options."** This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option 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
<i>Required Courses:</i>		
BIOL 113	Outdoor Survival	3
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
<i>Choose a total of 2 hours from the following list:</i>		2
OREC 108	Stand Up Paddle Boarding	
OREC 109	Kayaking	
OREC 110	River Rafting	
OREC 112	Rock Climbing II	
OREC 135	Backcountry Winter Travel	
<i>Choose a total of 9 hours from the following list:</i>		9
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 350	Community Health and the Outdoor Recreation Industry	

*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 her/his 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 her/his responsibility to consult the Registrar's Office regarding next steps.

## Paramedic

(See [Emergency Medical Services](#) (p. 352))

## Peace Officer Standards and Training (POST)

### Program Description

This police academy certificate program exceeds the Colorado Peace Officers Standards 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. Students enrolled in the program will earn 31 credit hours that may be applied towards an associate's or bachelor's of applied science degree at Colorado Mesa University.

Students admitted to the POST program must undergo a comprehensive background check.

### Special Requirements

This is a 16-week program that requires full time participation during the weeks of enrollment. The program is not an open enrollment and requires a separate application to the academy. See the academy director for details.

### Contact Information

Director, Office of Student Services  
WCCC, Bishop B102  
2508 Blichmann Avenue  
970.255.2670

### Programs of Study Certificates

- [Peace Officer Academy - Peace Officer Standards and Training \(POST\) \(Technical Certificate\)](#) (p. 609)

## Peace Officer Academy - Peace Officer Standards and Training (POST) (Technical Certificate)

Award: Technical Certificate

Program of Study: Peace Officer Academy - P.O.S.T. Certification  
Program Code: 1361

### About This Program . . .

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. This Academy is sponsored by the Grand Junction P.D., Mesa County S.O., and the 21st 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 Director or visit our web page for details.

For more information on what you can do with this major, visit WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. Illustrate communication and writing skills that are formal and professional in nature. (Communication Fluency)
2. Apply mathematical concepts required of entry level law enforcement and criminal justice professionals. (Quantitative Fluency)
3. Demonstrate critical thinking skills by evaluating and analyzing contemporary issues in law enforcement and criminal justice using knowledge of criminal justice concepts, terminology, and theories. (Critical Thinking)
4. Demonstrate specialized and holistic knowledge of the Criminal Justice system and the law enforcement profession. (Specialized Knowledge)
5. Demonstrate proficiency in basic skills required for entry level law enforcement and criminal justice professionals. (Applied Learning)
6. Examine ethical standards and practices, specific to law enforcement, the courts, and corrections. (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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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	6
CRJW 102	Basic Police Academy II	10
CRJW 105	Basic Law	6
CRJW 106	Arrest Control	3
CRJW 107	Law Enforcement Driving	2
CRJW 108	Firearms	3
KINA 127	Physical Conditioning	1
<b>Total Semester Credit Hours</b>		<b>31</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
CRJW 101	Basic Police Academy	6
CRJW 102	Basic Police Academy II	10
CRJW 105	Basic Law	6
CRJW 106	Arrest Control	3
CRJW 107	Law Enforcement Driving	2
CRJW 108	Firearms	3
KINA 127	Physical Conditioning	1
<b>Semester Credit Hours</b>		<b>31</b>
<b>Total Semester Credit Hours</b>		<b>31</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Personal Training

(See [Kinesiology](#) (p. 457))

## 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 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.

## Contact Information

Office of Student Services  
WCCC, Bishop B102  
2508 Blichmann Avenue  
970.255.2670

## Programs of Study Associates

- [Pharmacy Technician \(AAS\)](#) (p. 612)

## Certificates

- [Entry-Level Pharmacy Technician \(Technical Certificate\)](#) (p. 611)

## Entry-Level Pharmacy Technician (Technical Certificate)

Award: Technical Certificate

Program of Study: Entry-Level Pharmacy Technician

Program Code: 1199

## About This Program . . .

The Entry-Level Pharmacy Technician Certificate is designed to cover both the academic and clinical skills necessary to perform as an 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 Career Services' [What to Do with a Major?](#) resource.

All CMU/WCCC 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 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
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: Institutional	4
PHTE 171	Pharmacy Clinical: Community	4
PHTE 189	Review for PTCB National Exam	1
PHTE 235	Calculations and Compounding Techniques	4
<b>Total Semester Credit Hours</b>		<b>31</b>

## Suggested Course Plan

First Year

Fall Semester

		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 235	Calculations and Compounding Techniques	4

**Semester Credit Hours 16**

Spring Semester

PHTE 118	Pharmacology II	3
PHTE 119	Community Pharmacy	3
PHTE 170	Pharmacy Clinical: Institutional	4
PHTE 171	Pharmacy Clinical: Community	4
PHTE 189	Review for PTCB National Exam	1

**Semester Credit Hours 15**

**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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Pharmacy Technician (AAS)

### Overview

Degree: Associate of Applied Science  
Major: Pharmacy Technician

Program Code: 1399

## About This Major . . .

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 WCCC's Programs of Study page.

All CMU/WCCC 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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 Pharmacy Technician degree.

## 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
<b>English</b>		
ENGL 111	English Composition I-GTC01	3
SPCH 101	Interpersonal Communications	3
<b>Mathematics</b>		
MATH 107	Career Math (or higher)	3
<b>Other Essential Learning Core Courses</b>		
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts, or Humanities course (PHIL 105 strongly suggested)		3
BIOL 105 & 105L	Attributes of Living Systems-GTSC1 and Attributes of Living Systems Laboratory-GTSC1	4
<b>Total Semester Credit Hours</b>		<b>16</b>

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirements</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Total Semester Credit Hours</b>		<b>2</b>

## Program Specific Degree Requirements

(45 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: Institutional	4
PHTE 171	Pharmacy Clinical: Community	4
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
KINE 203	Human Nutrition	3
MOAP 147	Medical Terminology	4
PSYC 233	Human Growth and Development-GTSS3	3
<b>Total Semester Credit Hours</b>		<b>45</b>

## Suggested Course Plan

First Year		Semester Credit Hours
<b>Fall Semester</b>		
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 235	Calculations and Compounding Techniques	4
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
PHTE 118	Pharmacology II	3
PHTE 119	Community Pharmacy	3
PHTE 170	Pharmacy Clinical: Institutional	4
PHTE 171	Pharmacy Clinical: Community	4
PHTE 189	Review for PTCB National Exam	1
<b>Semester Credit Hours</b>		<b>15</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
BIOL 105 & 105L	Attributes of Living Systems-GTSC1 and Attributes of Living Systems Laboratory-GTSC1	4
ENGL 111	English Composition I-GTC01	3
MATH 107	Career Math	3
SPCH 101	Interpersonal Communications	3
Elective Course: Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts, or Humanities course (PHIL 105 strongly suggested)		3
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
MOAP 147	Medical Terminology	4
PHTE 250	Sterile Compounding and Aseptic Technique	2
PHTE 255	Advanced Practice and Nontraditional Roles	2
PSYC 233	Human Growth and Development-GTSS3	3
KINE 203	Human Nutrition	3
KINE 100	Health and Wellness	1
KINE Activity Course		1
<b>Semester Credit Hours</b>		<b>16</b>
<b>Total Semester Credit Hours</b>		<b>63</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## 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 Goldstein 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, and the minor works well as a pre-professional degree.

### Contact Information

Dr. Les Miller  
Department of Languages, Literature, and Mass Communication  
Escalante Hall 237  
970.248.1687

### Programs of Study Minors

- [Philosophy \(Minor\)](#) (p. 615)

## Philosophy (Minor)

Minor: Philosophy  
Program Code: M280

### About This Minor. . .

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
<b>Required Courses</b>		
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	
<b>Total Semester Credit Hours</b>		<b>9</b>

Code	Title	Semester Credit Hours
<b>Restricted Electives</b>		
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	
<b>Total Semester Credit Hours</b>		<b>9</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 her/his 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 her/his responsibility to consult the Registrar's Office regarding next steps.

## Physical Therapy

### Overview

**The Physical Therapy Program is currently under development. Please contact Academic Affairs/Kinesiology for more details.**

## Program Description

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).

Graduation from a physical therapist education program accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE), 1111 North Fairfax Street, Alexandria, VA 22314; phone: 703-706-3245; email: [accreditation@apta.org](mailto:accreditation@apta.org) is necessary for eligibility to sit for the licensure examination, which is required in all states.

Colorado Mesa University is seeking accreditation of a new physical therapist education program from CAPTE. The program is planning to submit an Application for Candidacy, which is the formal application required in the pre-accreditation stage, on December 1, 2022. Submission of this document does not assure that the program will be granted Candidate for Accreditation status. Achievement of Candidate for Accreditation status is required prior to implementation of the professional phase of the program; therefore, no students may be enrolled in professional courses until Candidate for Accreditation status has been achieved. Further, though achievement of Candidate for Accreditation status signifies satisfactory progress toward accreditation, it does not assure that the program will be granted accreditation.

## Contact Information

Department of Kinesiology  
Maverick Center 237B  
970.248.1635

## Physical Therapy (DPT)

### Overview

Degree: Doctor of Physical Therapy (DPT)  
Program Code: 9101

### About This Program . . .

**The Physical Therapy Program is currently under development. Please contact Academic Affairs/Kinesiology for more details.**

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).

Graduation from a physical therapist education program accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE), 1111 North Fairfax Street, Alexandria, VA 22314; phone: 703-706-3245; email: [accreditation@apta.org](mailto:accreditation@apta.org) is necessary for eligibility to sit for the licensure examination, which is required in all states.

Colorado Mesa University is seeking accreditation of a new physical therapist education program from CAPTE. The program is planning to submit an Application for Candidacy, which is the formal application required in the pre-accreditation stage, on December 1, 2022. Submission of this document does not assure that the program will be granted Candidate for Accreditation status. Achievement of Candidate for Accreditation status is required prior to implementation of the professional phase of the program; therefore, no students may be enrolled in professional courses until Candidate for Accreditation status has been achieved. Further, though achievement of Candidate for Accreditation status signifies satisfactory progress toward accreditation, it does not assure that the program will be granted accreditation.

## Physician Assistant

The Master of Physician Assistant Studies (MPAS) Program consists of didactic and clinical academic work over the course of 27 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 - Provisional** status to the **Colorado Mesa University Physician Assistant Program** sponsored by Colorado Mesa University. Accreditation - Provisional is an accreditation status granted when the plans and resource allocation, if fully implemented as planned, of a proposed program that has not yet enrolled students appear to demonstrate the program's ability to meet the ARC-PA *Standards* or when a program holding Accreditation - Provisional status appears to demonstrate continued progress in complying with the *Standards* as it prepares for the graduation of the first class (cohort) of students.

Accreditation - Provisional does not ensure any subsequent accreditation status. It is limited to no more than five years from matriculation of the first class.

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  
Physician Assistant Program  
1100 North Avenue  
Grand Junction, CO 81501  
970.248.1635  
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## Programs of Study Graduate

- [Physician Assistant \(MPAS\)](#) (p. 617)

## Physician Assistant (MPAS)

Degree: Master of Physician Assistant Studies  
Program of Study: Physician Assistant  
Program Code: 8160

## About This Program . . .

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 27-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. Demonstrate creativity and the ability to think critically and analytically.

2. Demonstrate the ability to work individually and in collaboration with others, in contributing to the scholarly advancement in their field.
3. Demonstrate advanced written and oral communication skills and the ability to access and analyze information from various literary sources.
4. Demonstrate the ability to recognize and articulate moral and ethical challenges within their discipline and demonstrate leadership.

## Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

**To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options."** This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option 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. 81)" 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
BIOL 500 & 500L	Advanced Human Anatomy and Advanced Human Anatomy Laboratory	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 & 520L	History and Physical Exam and History and Physical Exam Lab	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.

		Semester Credit Hours
<b>First Year</b>		
<b>Spring Semester</b>		
PHAS 541	PA Professionalism I	2
BIOL 500 & 500L	Advanced Human Anatomy and Advanced Human Anatomy Laboratory	4
PHAS 501	Biomedical Science	4
PHAS 502	Clinical Pharmacology	3
PHAS 510	Foundation to Clinical Medicine	2
PHAS 520 & 520L	History and Physical Exam and History and Physical Exam Lab	3
PHAS 530	Introduction to Research and Evidence-Based Medicine	2
<b>Semester Credit Hours</b>		<b>20</b>
<b>Summer Semester</b>		
PHAS 511	Clinical Medicine I	13
PHAS 531	Clinical Reasoning I	2
PHAS 521	Patient Assessment, Diagnostics and Clinical Skills Lab I	2
<b>Semester Credit Hours</b>		<b>17</b>
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>19</b>
<b>Second Year</b>		
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>18</b>
<b>Summer Semester</b>		
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
<b>Semester Credit Hours</b>		<b>12</b>
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>13</b>
<b>Third Year</b>		
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>14-16</b>
<b>Total Semester Credit Hours</b>		<b>113-115</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If your petition for graduation is denied, it will be your responsibility to apply for graduation in a subsequent semester. Your "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

Department of Physical and Environmental Sciences  
Wubben Science 232  
970.248.1993

## Programs of Study Associates

- [Physics, Liberal Arts \(AS\)](#) (p. 623)

## Bachelors/Minors

- [Physics \(BS\)](#) (p. 620)
- [Physics \(Minor\)](#) (p. 625)

## Physics (BS)

Degree: Bachelor of Science  
Major: Physics  
Program Code: 3471

## About This Major . . .

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. This project will integrate 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 151	Calculus I-GT-MA1 <sup>2</sup>	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b>		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

<sup>2</sup> 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
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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
Select one of the following options:		
CSCI 111	CS1: Foundations of Computer Science	4
CSCI 110 & 110L	Beginning Programming and Beginning Programming Laboratory	4
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
<b>Total Semester Credit Hours</b>		<b>14</b>

## 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
<b>Core Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>46-47</b>

Code	Title	Semester Credit Hours
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### Restricted Electives

Select two of the following:		
PHYS 312	Electromagnetic Theory II	6
PHYS 372	General Relativity	
PHYS 396	Topics <sup>1</sup>	
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 <sup>1</sup>	
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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-GT-MA1	2
Select additional electives		14-15
<b>Total Semester Credit Hours</b>		<b>16-17</b>

## Suggested Course Plan

While the sequencing below culminates in at total of 121-123 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	Semester Credit Hours
<b>Fall Semester</b>	
PHYS 131 & 131L	Fundamental Mechanics-GTSC1 and Fundamental Mechanics Laboratory-GTSC1
MATH 151	Calculus I-GT-MA1
Essential Learning - Humanities	
ENGL 111	English Composition I-GT-CO1
<b>Semester Credit Hours</b>	
	16
<b>Spring Semester</b>	
PHYS 132 & 132L	Electromagnetism and Optics-GTSC1 and Electromagnetism and Optics Laboratory-GTSC1
MATH 152	Calculus II
ENGL 112	English Composition II-GT-CO2
Essential Learning - History	
<b>Semester Credit Hours</b>	
	16
<b>Second Year</b>	
<b>Fall Semester</b>	
PHYS 230	Intermediate Dynamics
PHYS 251	Electronics for Scientists
MATH 253	Calculus III
KINA Activity	
Select one of the following:	
CSCI 111	CS1: Foundations of Computer Science
CSCI 110 & 110L	Beginning Programming and Beginning Programming Laboratory
<b>Semester Credit Hours</b>	
	15
<b>Spring Semester</b>	
PHYS 231	Modern Physics
PHYS 252	Intermediate Laboratory
MATH 260 or MATH 236	Differential Equations or Differential Equations and Linear Algebra
Essential Learning - Social and Behavioral Sciences	
ESSL 290	Maverick Milestone
ESSL 200	Essential Speech
<b>Semester Credit Hours</b>	
	16-17
<b>Third Year</b>	
<b>Fall Semester</b>	
PHYS 311	Electromagnetic Theory I
PHYS 342	Advanced Dynamics
PHYS 331	Advanced Laboratory I

MATH 360	Methods of Applied Mathematics	3
Essential Learning - Social and Behavioral Sciences		3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
PHYS 321	Quantum Theory I	3
PHYS 362	Statistical and Thermal Physics	3
Essential Learning - Natural Science with Lab		4
Essential Learning - Fine Arts		3
General Elective		3
<b>Semester Credit Hours</b>		<b>16</b>
<b>Fourth Year</b>		
<b>Fall Semester</b>		
Restricted Elective		3
PHYS 482	Senior Research	1
PHYS 494	Physics Seminar	1
General Electives		9
<b>Semester Credit Hours</b>		<b>14</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>13-14</b>
<b>Total Semester Credit Hours</b>		<b>121-123</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his 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

### About This Major . . .

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/WCCC 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTC01	3
ENGL 112	English Composition II-GTC02	3
<b>Mathematics</b> <sup>1</sup>		
MATH 151	Calculus I-GT-MA1 <sup>2</sup>	3
<b>History</b>		
Select one History course		3



<b>Humanities</b>	
Select one Humanities course	3
<b>Social and Behavioral Sciences</b>	
Select one Social and Behavioral Sciences course	3
Select one Social and Behavioral Sciences course	3
<b>Fine Arts</b>	
Select one Fine Arts course	3
<b>Natural Sciences</b>	
Select one Natural Sciences course	3
Select one Natural Sciences course with a lab	4
<b>Total Semester Credit Hours</b>	<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

<sup>2</sup> 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
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Total Semester Credit Hours</b>		<b>2</b>

## 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
<b>Core Courses</b>		
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	
<b>Physics Specialization Courses</b>		
MATH 151	Calculus I-GT-MA1	2
MATH 152	Calculus II	5
MATH 253	Calculus III	4
<b>Total Semester Credit Hours</b>		<b>24</b>

## General Electives

(3 semester hours)

Code	Title	Semester Credit Hours
Select elective(s)		3
<b>Total Semester Credit Hours</b>		<b>3</b>

## Suggested Course Plan

First Year	Semester Credit Hours	
<b>Fall Semester</b>		
PHYS 131	Fundamental Mechanics-GTSC1	4
PHYS 131L	Fundamental Mechanics Laboratory-GTSC1	1
ENGL 111	English Composition I-GTCO1	3
MATH 151	Calculus I-GT-MA1	5
Essential Learning - History		3
<b>Semester Credit Hours</b>	<b>16</b>	
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>	<b>16</b>	
<b>Second Year</b>		
<b>Fall Semester</b>		
MATH 253	Calculus III	4
Essential Learning - Natural Science with lab		4
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - Humanities		3
<b>Semester Credit Hours</b>	<b>14</b>	
<b>Spring Semester</b>		
PHYS 230	Intermediate Dynamics <sup>1</sup>	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
<b>Semester Credit Hours</b>	<b>14</b>	
<b>Total Semester Credit Hours</b>	<b>60</b>	

<sup>1</sup> 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 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Physics (Minor)

Minor: Physics  
Program Code: M430

### About This Minor. . .

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	
<b>Total Semester Credit Hours</b>		<b>20</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 her/his 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: 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 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  
Lowell Heiny Hall 413  
970.248.1696

## Programs of Study Bachelors/Minors

- [Political Science \(BA\)](#) (p. 626)
- [Political Science \(Minor\)](#) (p. 630)

## Political Science (BA)

Degree: Bachelor of Arts  
Major: Political Science  
Program Code: 3718

### About This Major . . .

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);
3. Articulate diverse perspective surrounding a political issue (Critical Thinking);
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.

## 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 110	Mathematical Investigations-GTMA1	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>2</sup>		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> One course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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 <sup>1</sup>		6
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> FLAS 114 & FLAS 115 will not fulfill this requirement. Must receive a grade of "C" or higher.

## Program Specific Degree Requirements

(60 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
<b>Political Science Core</b>		
POLS 101	American Government-GTSS1	3
POLS 151	Introduction to Political Ideas	3
POLS 201	Introduction to Political Inquiry	3
POLS 236	State and Local Government	3
POLS 261	Comparative Politics-GTSS1	3
POLS 270	World Politics	3
POLS 351	Public and Elite Political Behavior	3
POLS 490	Senior Seminar for Political Science	3
<b>Political Science Electives</b>		
<i>Political Theory</i>		
Select one of the following:		3
POLS 452	Political Theory: Classical and Medieval	
POLS 453	Political Theory: Modern	
POLS 482	International Relations Theory	
<i>American Politics</i>		
Select one of the following:		3
POLS 324	The Legislative Process	
POLS 325	The American Presidency	
POLS 328	The American Court System	
POLS 412	Constitutional Law	
<i>Global Politics</i>		
Select one of the following:		3
POLS 366	Government and Politics of Asia	
POLS 372	Peace and Conflict Studies	
POLS 373	Global Politics of Women and Gender	
POLS 471	Politics of Global Governance	
POLS 472	International Political Economy	
POLS 475	American Foreign and National Security Policy	
<i>Political Issues</i>		
Select one of the following:		3
POLS 352	Religion and Politics	
POLS 353	Politics of Human and Natural Resources	
POLS 354	Political Geography	
POLS 356	Indigenous Politics	
POLS 462	Public Policy: Theory and Practice	
POLS 488	Environmental Politics and Policy	
<i>Public Administration</i>		
Select one of the following:		3
PADM 315	Public Management	
PADM 350	Ethics in Public Administration	
PADM 442	Public Budgeting	
PADM 446	Public Personnel Management	
POLS 342	Public Administration	
EMDP 211	Introduction to Emergency Management	
<b>Political Science Specialization</b>		

Select four additional courses from Political Theory, American Politics, Global Politics, Political Issues and/or Public Administration 12

### Career Preparation

Select one of the following: 3

STAT 215	Statistics for Social and Behavioral Sciences
SPCH 304	Communication and Conflict
SPCH 305	Intercultural Communication
SPCH 306	Communication and Leadership
SPCH 308	Argumentation and Debate
SOCI 470	Pre-Law in Practice
POLS 395	Independent Study
POLS 396	Topics
POLS 495	Independent Study
POLS 496	Topics
POLS 499	Internship

**Total Semester Credit Hours 54**

Code	Title	Semester Credit Hours
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### Restricted Electives

Select 2 of the following Political Science related courses: 6

CRMJ 420	Criminal Law
CRMJ 425	Trial, Evidence and Legal Advocacy
EMDP 321	Hazard Preparedness and Mitigation
EMDP 331	Disaster Response and Recovery
HIST 303	History of Modern Germany
HIST 315	American Indian History
HIST 320	The American West
HIST 333	The International History of the Cold War
HIST 342	The Early American Republic
HIST 346	The United States in the 1950's and 1960's
HIST 347	Global America: 1970-2000
HIST 371	20th Century United States Women's History
HIST 400	The Soviet Union and Eastern Europe
HIST 403	East Asia and the Modern World
HIST 406	History of the African Continent
HIST 410	Environmental History of the United States
HIST 425	History of Sexuality
PSYC 320	Social Psychology
SOCI 101	Introduction to Lesbian, Gay, Bisexual, and Transgender Studies
SOCI 410	Death, Dying & Bereavement
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 325	Race and Ethnic Relations

**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. 16 semester hours; 7 hours of upper division may be needed

Code	Title	Semester Credit Hours
	Select electives	16
<b>Total Semester Credit Hours</b>		<b>16</b>

## Suggested Course Plan

While the sequencing below culminates in at 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		Semester Credit Hours
<b>Fall Semester</b>		
ENGL 111	English Composition I-GTC01	3
	Essential Learning - History	3
MATH 110	Mathematical Investigations-GTMA1	3
	Essential Learning - Natural Science	3
POLS 101	American Government-GTSS1	3
KINE 100	Health and Wellness	1
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
ENGL 112	English Composition II-GTC02	3
	Essential Learning - Humanities	3
	Essential Learning - Social and Behavioral Sciences	3
POLS 151	Introduction to Political Ideas	3
POLS 270	World Politics	3
	KINA Activity	1
<b>Semester Credit Hours</b>		<b>16</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
	Essential Learning - Fine Arts	3
	Essential Learning - Social and Behavioral Sciences	3
	Foundation Course - Foreign Language	3
POLS 201	Introduction to Political Inquiry	3
POLS 236	State and Local Government	3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
	Essential Learning - Natural Science with Lab	4
POLS 261	Comparative Politics-GTSS1	3
	Foundation Course - Foreign Language	3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Semester Credit Hours</b>		<b>14</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
	Political Theory Elective	3
	American Politics Elective	3
	Global Politics Elective	3
	Restricted Elective	3
	Elective	3
<b>Semester Credit Hours</b>		<b>15</b>

<b>Spring Semester</b>		
	Occupational Preparation Course	3-4
POLS 351	Public and Elite Political Behavior	3
	Political Issues Elective	3
	Public Administration Elective	3
	General Electives (1-2 courses)	4
<b>Semester Credit Hours</b>		<b>16-17</b>
<b>Fourth Year</b>		
<b>Fall Semester</b>		
POLS 490	Senior Seminar for Political Science	3
	Political Science Specialization (2 courses)	6
	Restricted Elective	3
	General Elective	3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
	Political Science Specialization (2 courses)	6
	General Electives (2 courses)	6
<b>Semester Credit Hours</b>		<b>12</b>
<b>Total Semester Credit Hours</b>		<b>119-120</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Political Science (Minor)

Minor: Political Science  
Program Code: M730

### About This Minor. . .

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

(24 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	3
POLS 236	State and Local Government	3
POLS 270	World Politics	3
Select 9 semester hours of Upper Division POLS - Political Science		9
<b>Total Semester Credit Hours</b>		<b>24</b>

### Advising and Graduation

#### Advising Process and DegreeWorks

Documentation on 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 her/his 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 her/his responsibility to consult the Registrar's Office regarding next steps.

### Process Systems Technology

#### Program Description

The process systems technology program prepares students for entry-level employment as process operators or technicians. A process operator/technician is a key member of a team of people responsible for planning, analyzing and controlling the production of products from the acquisition of raw materials through the production and distribution of products to customers in a variety of process industries.

This program provides an understanding of process equipment 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, shift-oriented position. Industries interested in the graduates from the program include, but are not limited to, oil exploration and production, mining and mineral processing, petroleum product manufacturing, advanced manufacturing, pharmaceutical production, food and beverage, electric power generation, drinking water treatment and wastewater treatment.

### Contact Information

Office of Student Services

WCCC, Bishop B102  
2508 Blichmann Avenue  
970.255.2670

## Programs of Study Certificates

- [Control Systems Technician, Process Systems Technology \(Technical Certificate\)](#) (p. 631)
- [Electronics Technician, Process Systems Technology \(Technical Certificate\)](#) (p. 632)

## Control Systems Technician, Process Systems Technology (Technical Certificate)

Award: Technical Certificate  
Program of Study: Process Systems Technology  
Specialization: Control Systems Technician  
Program Code: 1114

### About This Program . . .

The Process Technology Program will prepare students for entry level employment as process operators or technicians. A process operator/technician is a key member of a team of people responsible for planning, analyzing, and controlling the production of products from the acquisition of raw materials through the production and distribution of products to customers in a variety of process industries.

This program will provide the student with an understanding of process equipment 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, shift-oriented position. The industries interested in the graduates from the program include, but are not limited to, oil exploration and production, mining and mineral processing, petroleum product manufacturing, advanced manufacturing, pharmaceutical production, food and beverage, electric power generation, drinking water treatment, and wastewater treatment.

For more information on what you can do with this major, visit WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. Apply business communication using listening, verbal and written and electronic forms that are needed for entry level employment. (Communication Fluency)
2. Apply mathematical and applied physics concepts for industry to meet employment requirements. (Quantitative Fluency)
3. Research, evaluate, synthesize and apply information/data relevant to business, sciences and technical careers. (Critical Thinking)
4. Demonstrate knowledge of 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. (Applied Learning)
6. Demonstrate ethical, civic and work place responsibility as part of 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
PROS 100	Introduction to Process Technology	3
PROS 110	Safety, Health and Environment (not currently offered)	3



PROS 117	Electronics I	3	related to computer systems, computer system administration and networking, electronics, and telecommunications engineering.
PROS 120	Process Technology I: Equipment	4	Students begin the program studying basic core classes including communications, DC/AC circuitry, information technology hardware and software, and Cisco Systems Network training.
PROS 130	Instrumentation (not currently offered)	3	
<b>Total Semester Credit Hours</b>		<b>16</b>	

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Electronics Technician, Process Systems Technology (Technical Certificate)

Award: Technical Certificate  
 Program of Study: Process Systems Technology  
 Specialization: Electronics Technician  
 Program Code: 1115

## About This Program . . .

Students enrolled in Process Technology 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,

The coursework in this certificate is aligned with the Associate Level certification called the Associate Certified Electronics Technician (CeTa) is given by the ETA. 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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. Apply business communication using listening, verbal and written and electronic forms that are needed for entry level employment. (Communication Fluency)
2. Apply mathematical and applied physics concepts for industry to meet employment requirements. (Quantitative Fluency)
3. Research, evaluate, synthesize and apply information/data relevant to business, sciences and technical careers. (Critical Thinking)
4. Demonstrate knowledge of 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. (Applied Learning)
6. Demonstrate ethical, civic and work place responsibility as part of 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 WCCC 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/WCCC.

- 2.00 cumulative GPA or higher in all CMU/WCCC 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
PROS 117	Electronics I	3
MATH 108	Technical Mathematics	4
TECI 132	Introduction to IT Hardware and System Software	3
PROS 118	Electronics II	3
PROS 130	Instrumentation (not currently offered)	3
<b>Total Semester Credit Hours</b>		<b>16</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his 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 or the BA in Psychology with a concentration in counseling psychology. All majors are required to complete some laboratory coursework in which they conduct psychological science research. Internships are required for counseling students and are available at nearby human service agencies and treatment centers. 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 the 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.

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.

A minor in forensic investigation – psychology provides students 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  
Lowell Heiny Hall 413

970.248.1696

## Programs of Study Bachelors/Minors

- [Counseling Psychology, Psychology \(BA\)](#) (p. 634)
- [Forensic Investigation - Psychology \(Minor\)](#) (p. 639)
- [Psychology \(BA\)](#) (p. 637)
- [Psychology \(Minor\)](#) (p. 640)

## Counseling Psychology, Psychology (BA)

Degree: Bachelor of Arts  
Major: Psychology  
Concentration: Counseling Psychology  
Program Code: 3724

### About This Major . . .

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
<b>English <sup>1</sup></b>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics <sup>1</sup></b>		
MATH 110	Mathematical Investigations-GTMA1	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences <sup>2</sup></b>		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> One course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone <sup>1</sup></b>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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 <sup>1</sup>		6
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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
<b>Core Courses</b>		
<i>Psychology Core</i>		
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
<i>Counseling Core</i>		
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	
<b>Total Semester Credit Hours</b>		<b>51</b>

## 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
<b>Total Semester Credit Hours</b>		<b>26</b>

## Recommended Electives:

Code	Title	Semester Credit Hours
<i>Developmental Area</i>		
PSYC 310	Child Psychology	
PSYC 330	Psychology of Adolescents and Emerging Adulthood	
PSYC 350	Psychology Of Adulthood	
<i>Neuropsychological Area</i>		
PSYC 410	Drugs and Human Behavior	

At least one course from each of the following three areas plus optional Practicum II

PSYC 422	Sensation and Perception
PSYC 430	Biopsychology
<b>Topical Area</b>	
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 390	GRE Preparation
SOCI 410	Death, Dying & Bereavement
SOCI 497	Structured Research
<b>Optional Practicum II</b>	
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
<b>Semester Credit Hours</b>		<b>13</b>

#### 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
<b>Semester Credit Hours</b>		<b>13</b>

### 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
<b>Semester Credit Hours</b>		<b>16</b>

#### 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
<b>Semester Credit Hours</b>		<b>18</b>

### 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
<b>Semester Credit Hours</b>		<b>15</b>

#### 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
<b>Semester Credit Hours</b>		<b>15</b>

### Fourth Year

#### Fall Semester

PSYP 424	Group Processes	3
PSYC 400	Psychological Testing	3
General Electives (3 courses)		9
<b>Semester Credit Hours</b>		<b>15</b>

#### Spring Semester

PSYC 420	Personality	3
PSYP 422	Psychological Interviewing	3
PSYP 497	Practicum I	4
General Electives (2 courses)		5
<b>Semester Credit Hours</b>		<b>15</b>

#### 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 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Psychology (BA)

Degree: Bachelor of Arts  
Major: Psychology  
Program Code: 3726

### About This Major . . .

Students may pursue the Psychology B.A. degree or the Psychology B.A. degree with a concentration in Counseling Psychology. All majors are required to complete some laboratory coursework in which they conduct psychological science research. 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 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 (Applied Learning)
3. Communicate clearly in written and oral presentations in standard American Psychological Association format (APA) (Broad Integrative Knowledge/Applied Learning)
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. (Intellectual Skills)

## Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

**To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options."** This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTC01	3
ENGL 112	English Composition II-GTC02	3
<b>Mathematics</b> <sup>1</sup>		
MATH 110	Mathematical Investigations-GTMA1	3

<b>History</b>	
Select one History course	3
<b>Humanities</b>	
Select one Humanities course	3
<b>Social and Behavioral Sciences</b>	
Select one Social and Behavioral Sciences course	3
Select one Social and Behavioral Sciences course	3
<b>Fine Arts</b>	
Select one Fine Arts course	3
<b>Natural Sciences</b> <sup>2</sup>	
Select one Natural Sciences course	3
Select one Natural Sciences course with a lab	4
<b>Total Semester Credit Hours</b>	<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> One course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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		6 <sup>1</sup>
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> FLAS 114 & FLAS 115 will not fulfill this requirement.

## Program Specific Degree Requirements

(53 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
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### 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 414	History of Psychology	3
PSYC 216	Research Methods in Psychology	4
PSYC 416	Memory And Cognition	3

### Psychology Electives

<i>Developmental Area</i>		
Select one of the following: 3		
PSYC 310	Child Psychology	
PSYC 330	Psychology of Adolescents and Emerging Adulthood	
PSYC 345	Abnormal Child Psychology	
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 335	Psychology of Women	
PSYC 370	Cross-Cultural Psychology	
PSYC 411	Human Sexuality	
PSYC 425	Forensic Psychology	

### *Health and Wellness Area*

Select one of the following: 3		
PSYC 300	Health Psychology	
PSYC 340	Abnormal Psychology	
PSYC 410	Drugs and Human Behavior	
SOCI 410	Death, Dying & Bereavement	

### *Behavioral Neuroscience Area*

Select one of the following: 3		
PSYC 314	Psychology Of Learning	
PSYC 422	Sensation and Perception	
PSYC 430	Biopsychology	

Select eighteen credits of additional psychology electives from any of 18 the content areas above or from the following list:

PSYP 305	Suicide Intervention Training	
PSYP 306	Applied Ethics in Mental Health and Counseling	
PSYC 400	Psychological Testing	
PSYC 395/495	Independent Study	
PSYC 396/496	Topics	
PSYC 499	Internship	
SOCI 390	GRE Preparation	
SOCI 497	Structured Research	

**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. 24 semester hours. At least 1 hour must be upper division.

Code	Title	Semester Credit Hours
	Select electives	24
<b>Total Semester Credit Hours</b>		<b>24</b>

## Suggested Course Plan

### First Year

Code	Title	Semester Credit Hours
ENGL 111	English Composition I-GTCO1	3
	Essential Learning - Humanities	3
	Essential Learning - Social/Behavioral Science	3
	Essential Learning - Natural Science with Lab	4
PSYC 150	General Psychology-GTSS3	3
<b>Semester Credit Hours</b>		<b>16</b>

### Spring Semester

ENGL 112	English Composition II-GTCO2	3
	Essential Learning - Natural Science	3
MATH 110	Mathematical Investigations-GTMA1 (or higher)	3
	Essential Learning - History	3
KINE 100	Health and Wellness	1
	Essential Learning - Fine Arts	3
<b>Semester Credit Hours</b>		<b>16</b>

### Second Year

Code	Title	Semester Credit Hours
	Foundation Course - Foreign Language	3
PSYC 201	Orientation to the Psychology Major	3
	Essential Learning - Social/Behavioral Science	3
STAT 215	Statistics for Social and Behavioral Sciences	4
	KINA Activity	1
<b>Semester Credit Hours</b>		<b>14</b>

### Spring Semester

ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
	Foundation Course - Foreign Language	3
	General Elective	3
PSYC 216	Research Methods in Psychology	4
<b>Semester Credit Hours</b>		<b>14</b>

### Third Year

Code	Title	Semester Credit Hours
PSYC 416	Memory And Cognition	3
	General Electives	3
	Upper Division Psychology Electives (3 courses)	9
<b>Semester Credit Hours</b>		<b>15</b>

### Spring Semester

	Upper Division Psychology Electives (3 courses)	9
	General Electives (2 courses)	6
<b>Semester Credit Hours</b>		<b>15</b>

### Fourth Year

Code	Title	Semester Credit Hours
	Upper Division Psychology Electives (3 courses)	9
	General Electives (2 courses)	6
<b>Semester Credit Hours</b>		<b>15</b>

### Spring Semester

PSYC 414	History of Psychology	3
	Upper Division Psychology Electives (2 courses)	6
	General Electives (2 courses)	6
<b>Semester Credit Hours</b>		<b>15</b>
<b>Total Semester Credit Hours</b>		<b>120</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Forensic Investigation - Psychology (Minor)

Minor: Forensic Investigation - Psychology  
Program Code: M716

### About This Minor. . .

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 her/his 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 her/his responsibility to consult the Registrar's Office regarding next steps.

## Psychology (Minor)

Minor: Psychology

Program Code: M740

## About This Minor. . .

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
<b>Developmental Area</b>		
Select one of the following:		3
PSYC 310	Child Psychology	
PSYC 330	Psychology of Adolescents and Emerging Adulthood	
PSYC 350	Psychology Of Adulthood	
<b>Personality/Social Area</b>		
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	
<b>Neuropsychology Area</b>		
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
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**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 her/his 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 her/his responsibility to consult the Registrar's Office regarding next steps.

## Public History

(See [History](#) (p. 428))

## Radiologic Sciences

### Program Descriptions

The Bachelor of Science in Radiologic Sciences 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 Certificate 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. 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. All coursework is in an online format.

## Special Requirements

Students applying for admission into the program must be admitted into the general University. Admission to Colorado Mesa University does not guarantee admission into the radiologic sciences programs, which require 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 \(BAS\)](#) (p. 644)
- [Radiologic Sciences \(BSRS\)](#) (p. 646)

## Certificates

- [Computed Tomography \(Professional Certificate\)](#) (p. 642)
- [Magnetic Resonance Imaging \(Professional Certificate\)](#) (p. 643)

## Computed Tomography (Professional Certificate)

Award: Professional Certificate  
Program of Study: Computed Tomography  
Program Code: 1605

## About This Program . . .

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 critical thinking, communication fluency, quantitative fluency, and specialized knowledge/applied learning. 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
<b>Total Semester Credit Hours</b>		<b>16</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Spring Semester		
RADS 461	Principles of Computed Tomography	2
RADS 480	Clinical Specialization I	4
<b>Semester Credit Hours</b>		<b>6</b>
Fall Semester		
RADS 452	Sectional Anatomy	3
RADS 471	Applied Computed Tomography	3
RADS 490	Clinical Specialization II	4
<b>Semester Credit Hours</b>		<b>10</b>
<b>Total Semester Credit Hours</b>		<b>16</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If your petition for graduation is denied, it will be your responsibility to apply for graduation in a subsequent semester. Your "Intent to Graduate" does not automatically move to a later graduation date.

## Magnetic Resonance Imaging (Professional Certificate)

Award: Professional Certificate  
Program of Study: Magnetic Resonance Imaging  
Program Code: 1606

### About This Program . . .

#### This program is no longer accepting new students.

The Professional Certificate in Magnetic Resonance Imaging is designed to prepare certified and registered radiologic technologists for post-primary certification and registration with the American Registry of Radiologic Technologists (ARRT) in magnetic resonance imaging. Students must be certified and registered with the ARRT in radiography, nuclear medicine technology (NMTCB also accepted), radiation therapy, or sonography (ARDMS also accepted) 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 critical thinking, communication fluency, quantitative fluency, and specialized knowledge/applied learning. 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, must earn a grade of “C” or better in each course.)

Code	Title	Semester Credit Hours
RADS 452	Sectional Anatomy	3
RADS 460	Principles of Magnetic Resonance Imaging	2
RADS 470	Applied Magnetic Resonance Imaging	3
RADS 480	Clinical Specialization I	4
RADS 490	Clinical Specialization II	4
<b>Total Semester Credit Hours</b>		<b>16</b>

## Suggested Course Plan

First Year

Fall Semester		Semester Credit Hours
RADS 452	Sectional Anatomy	3
RADS 460	Principles of Magnetic Resonance Imaging	2
RADS 480	Clinical Specialization I	4
<b>Semester Credit Hours</b>		<b>9</b>

Spring Semester

RADS 470	Applied Magnetic Resonance Imaging	3
RADS 490	Clinical Specialization II	4
<b>Semester Credit Hours</b>		<b>7</b>
<b>Total Semester Credit Hours</b>		<b>16</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If your petition for graduation is denied, it will be your responsibility to apply for graduation in a subsequent semester. Your “Intent to Graduate” does not automatically move to a later graduation date.

## Radiologic Sciences (BAS)

Degree: Bachelor of Applied Science

Major: Radiologic Sciences

Program Code: 3622

## About This Major . . .

### This program is no longer accepting new students.

The Bachelor of Applied Science in Radiologic Sciences combines the technical skills and patient care skills necessary for success in today’s health care arena. 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 radiologic science courses. This allows associate degree holders to gain a 4-year degree in approximately four additional full-time semesters, depending upon prior coursework.

Courses to be taken include advanced patient care, quality management, informatics in radiology, research and areas of specialization such as computed tomography, and magnetic resonance imaging. Upon completion of the program, students will be technically and academically prepared for leadership positions in their chosen specialties.

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 specialty areas as well as supervision/management positions.

Important information for 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.
- Applicants must be certified by the American Registry of Radiologic Technologists or its equivalent to be admitted to the program.
- Program applicants must possess an AAS degree in Radiologic Technology or Radiologic Science. Acceptance of AAS radiologic technology credits will be limited to no more than 36 hours unless approved by both the BAS advisor and the academic department head.
- Applicants possessing a certificate of completion from a JRCERT accredited program in Radiologic Technology may also be admitted conditionally to the program while completing the requirements for an AAS degree. Please see the Radiologic Science Program Director for complete requirements and application form.
- All degree requirements must be completed as described. Any exceptions or substitutions must be recommended in advance by the faculty advisor and approved by the Department Head. Students are required to participate in exit examinations or other programs deemed necessary to comply with the university accountability requirement.

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. Relate ethical principles to real-life problems in the radiologic sciences. (Specialized Knowledge)
2. Combine academic theory with practitioner experience and skills. (Applied Learning)
3. Apply quantitative analysis methods to develop appropriate conclusions (Quantitative Fluency)
4. Communicate effectively through written documents. (Communication)
5. Develop critical thinking and problem solving skills that demonstrate a professional level of expertise in advanced specialty areas in the radiologic sciences. (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.
- 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:

- 121 semester hours required for the BAS in Radiologic Sciences.

## 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 110	Mathematical Investigations-GTMA1	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3

**Fine Arts**

Select one Fine Arts course	3
<b>Natural Sciences<sup>2</sup></b>	
Select one Natural Sciences course	3
Select one Natural Sciences course with a lab	4
<b>Total Semester Credit Hours</b>	<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> One course must include a lab.

**Other Lower Division Requirements**

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone<sup>1</sup></b>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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**

(25 semester hours, must maintain a 2.00 cumulative GPA or higher in coursework in this area.)

Code	Title	Semester Credit Hours
<b>Core Courses</b>		
RADS 452	Sectional Anatomy	3
RADS 453	Advanced Patient Care	3
RADS 462	Leadership and Management	3
RADS 463	Information Literacy in Radiologic Sciences	3
<b>Specialization</b>		
Select one of the following options:		5
RADS 460 & RADS 470	Principles of Magnetic Resonance Imaging and Applied Magnetic Resonance Imaging	
RADS 461 & RADS 471	Principles of Computed Tomography and Applied Computed Tomography	
RADS 480	Clinical Specialization I	4
RADS 490	Clinical Specialization II	4
<b>Bachelor of Applied Science Core</b>		
36 Semester Hours taken as part of a state approved Associate of Applied Science degree		36
<b>Total Semester Credit Hours</b>		<b>61</b>

**General Electives**

All college level courses appearing on final transcript, not listed above to bring total to 121 semester hours, including 33 upper division semester hours. 8 upper division semester hours required.

Code	Title	Semester Credit Hours
Select electives		Hours vary as needed

**Advising and Graduation  
Advising Process and DegreeWorks**

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

**Radiologic Sciences (BSRS)**

Degree: Bachelor of Science in Radiologic Sciences  
Major: Radiologic Sciences  
Program Code: 3623

## About This Major . . .

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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTC01	3
ENGL 112	English Composition II-GTC02	3
<b>Mathematics</b> <sup>1</sup>		
MATH 113	College Algebra-GTMA1 <sup>2</sup>	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b> <sup>3</sup>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>4</sup>		
Select one Natural Sciences course		3



Select one Natural Sciences course with a lab <sup>5</sup>	4
<b>Total Semester Credit Hours</b>	<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

<sup>2</sup> This is a 4 credit course. 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.

<sup>3</sup> PSYC 150 and PSYC 233 are recommended.

<sup>4</sup> 7 semester hours, one course must include a lab.

<sup>5</sup> BIOL 101 and BIOL 101L are recommended.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone <sup>1</sup></b>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

## 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 and Human Anatomy and Physiology 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 or Statistics for Social and Behavioral Sciences	3-4
<b>Total Semester Credit Hours</b>		<b>15-16</b>

## Program Specific Degree Requirements

(67 semester hours, must earn a grade of "C" or higher in each course.)

Code	Title	Semester Credit Hours
<b>Core Courses</b>		
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
<b>Clinical Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>67</b>

## 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
<b>Total Semester Credit Hours</b>		<b>1</b>

## Suggested Course Plan

First Year		Semester Credit Hours	
Fall Semester			
ENGL 111	English Composition I-GTC01	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	
<b>Semester Credit Hours</b>		<b>14</b>	
Spring Semester		Semester Credit Hours	
ENGL 112	English Composition II-GTC02		3
MATH 113	College Algebra-GTMA1		4
PSYC 233	Human Growth and Development-GTSS3		3
BIOL 209 & 209L	Human Anatomy and Physiology and Human Anatomy and Physiology Laboratory		4
<b>Semester Credit Hours</b>			<b>14</b>

**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
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**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 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Real Estate

The certificate in Real Estate is designed to prepare students to learn more about many aspects of the real estate industry. The 3-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

Department of Business  
Dominguez Hall 301  
970.248.1778

## Programs of Study

Certificates

- [Real Estate \(Professional Certificate\)](#) (p. 650)

## Real Estate (Professional Certificate)

Award: Professional Certificate  
Major: Real Estate  
Program Code: 1700

### About This Program . . .

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 critical thinking, communication fluency, quantitative fluency, and specialized knowledge/applied learning. 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
<b>Total Semester Credit Hours</b>		<b>9</b>

## Suggested Course Plan

Third Year		Semester Credit Hours
Fall Semester		
REAL 350	Real Estate Fundamentals	3
<b>Semester Credit Hours</b>		<b>3</b>
Spring Semester		
REAL 410	Real Estate Finance and Development	3
<b>Semester Credit Hours</b>		<b>3</b>
Fourth Year		
Fall Semester		
REAL 415	Real Estate Valuation and Investment	3
<b>Semester Credit Hours</b>		<b>3</b>
<b>Total Semester Credit Hours</b>		<b>9</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If your petition for graduation is denied, it will be your responsibility to apply for graduation in a subsequent semester. Your "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 which traditionally constitute the social sciences: anthropology, history, political science, sociology, psychology, economics and geography.

The Social Science graduate certificate is designed for high school teachers who already have a Bachelor's Degree and need the credentials required by the Higher Learning Commission to teach history and political science courses for lower-division, college-level, concurrent enrollment classes.

Students in this certificate program will acquire 18 credit hours of graduate coursework in the fields of history and political science. The courses are spread over a two-year period, as shown in the schedule below.

In addition, the program allows students to explore history and political science in greater depth, and to prepare themselves for masters-level graduate degrees in these fields. The transferability of these courses towards a specific Master's degree is not guaranteed, and would depend on the individual Master's program to which the students choose to apply.

## Contact Information

Department of Social and Behavioral Sciences  
Lowell Heiny Hall 413  
970.248.1696

## Programs of Study Associates

- [Social Science, Liberal Arts \(AA\)](#) (p. 651)

## Graduate

- [Social Science \(Graduate Certificate\)](#) (p. 344)

## Social Science, Liberal Arts (AA)

Degree: Associate of Arts  
Major: Liberal Arts  
Emphasis: Social Science  
Program Code: 2710

## About This Major . . .

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/WCCC 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 110	Mathematical Investigations-GTMA1	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		

Select one Humanities course	3
<b>Social and Behavioral Sciences</b>	
Select one Social and Behavioral Sciences course	3
Select one Social and Behavioral Sciences course	3
<b>Fine Arts</b>	
Select one Fine Arts course	3
<b>Natural Sciences</b> <sup>2</sup>	
Select one Natural Sciences course	3
Select one Natural Sciences course with a lab	4
<b>Total Semester Credit Hours</b>	<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> One course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Total Semester Credit Hours</b>		<b>2</b>

## 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: <sup>1</sup>		18
Anthropology		
Archeology		
Economics		
History		
Geography		
Political Science		
Psychology		
Criminal Justice		
Social Science		
Sociology		
<b>Total Semester Credit Hours</b>		<b>18</b>

<sup>1</sup> 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
<b>Total Semester Credit Hours</b>		<b>9</b>

## 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
<b>Semester Credit Hours</b>	<b>17</b>

### 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
<b>Semester Credit Hours</b>	<b>16</b>

### Second Year

Fall Semester	Semester Credit Hours
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
<b>Semester Credit Hours</b>	<b>15</b>
Spring Semester	Semester Credit Hours
Essential Learning - Social and Behavioral Sciences	3
Social/Behavioral Science Emphasis Requirement	3
Social/Behavioral Science Emphasis Requirement	3
General Elective	3
<b>Semester Credit Hours</b>	<b>12</b>
<b>Total Semester Credit Hours</b>	<b>60</b>

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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Social Work

### Program Description

Social work is a profession dedicated to social and economic justice. Social workers focus primarily on the needs and empowerment of vulnerable, oppressed, at-risk populations, and those living in poverty.

The CMU BSW Program Mission is: "To educate students as generalist social work practitioners who embrace the mission and core values of the social work profession, including issues of diversity, service, the dignity and worth of all people, and social and economic justice."

### Program Goals

The Social Work program will:

- Educate students as generalist social work practitioners with knowledge and understanding of the ecological perspective, the strengths perspective, the empowerment approach, and solid problem solving and case management skills.
- Assist students in viewing complex human and social issues from a multi-dimensional, multi-level approach involving micro-, mezzo-, and macro-level interventions.
- Provide opportunities for the application of the social work mission and core values of service, the dignity and worth of all people, the importance of human relationships, integrity, competency, and social and economic justice.
- Maintain high professional standards and knowledge of the National Association of Social Workers (NASW) Code of Ethics.
- Help students strengthen the relationship between theory and practice by engaging them in various service learning projects, leadership development, strong field education placements, and involvement in the social work club.

Professional social workers are found in every facet of community life—in 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.

## Special Requirements

Admission to the University does not guarantee admission to the BSW program; a separate admission application to the BSW program is required, as discussed below.

## Admission Requirements

Students must apply to get accepted into the Social Work Program. The application packet is completed during the spring semester of a student's sophomore year. The application packet and admissions criteria includes:

- Completion of at least 60 credits of coursework before admission into the program (junior status).
- Maintenance of a minimum overall GPA of 2.0 and a minimum GPA of 2.5 in social work classes.
- Personal statement and essay that includes why you would like to choose social work as a major, extracurricular and volunteer activities, work experience, career goals and interests, and a commitment to the social work mission, core values, and the NASW Code of Ethics.<sup>1</sup>
- Quality of written material (on application, personal statement, and essay).
- Faculty evaluations, as indicated by class attendance, participation, communication skills, and ability to work together with other classmates.
- Student will be notified in writing if they have been accepted into the social work program.
- If accepted into the program, students will be a part of a cohort program that will complete course work together in a sequential format, for their junior and senior years.
- Faculty interview.

<sup>1</sup> The social work program at CMU does not grant course credit for life experience or previous work experience.

The 15 credit-hour minor in Social Work can be combined with a major in any field. No application process is required for the minor. This minor will help equip students who desire to work in a human services field upon graduation. A minor in Social Work is also beneficial for any student hoping to gain admissions into a master's degree in Social Work (MSW) program.

## Contact Information

Department of Social and Behavioral Sciences  
Lowell Heiny Hall 413  
970.248.1696

## Programs of Study Bachelors/Minors

- [Social Work \(BSW\)](#) (p. 654)
- [Social Work \(Minor\)](#) (p. 657)

## Graduate

- [Social Work: Advanced Standing \(MSW\)](#)
- [Social Work: Foundation \(MSW\)](#)

## Social Work (BSW)

Degree: Bachelor of Social Work  
Major: Social Work  
Program Code: 3765

## About This Major . . .

Social Work is a profession dedicated to social and economic justice. Social workers focus primarily on the needs and empowerment of vulnerable, oppressed, at-risk populations, 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.

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 (<http://www.socialworkers.org/>).

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 31 practice behaviors through a senior-year practicum in a social service agency in our community (Specialized Knowledge).
2. Demonstrate the ability to use practice experience to inform scientific inquiry and use research evidence to inform practice (Quantitative Fluency).
3. Demonstrate effective oral and written communication in working with individuals, families, groups, organizations, communities and colleagues through professional documentation 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).

## Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

**To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information,**

scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 110	Mathematical Investigations-GTMA1	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		

Select one Humanities course	3
<b>Social and Behavioral Sciences</b>	
Select one Social and Behavioral Sciences course	3
Select one Social and Behavioral Sciences course	3
<b>Fine Arts</b>	
Select one Fine Arts course	3
<b>Natural Sciences</b> <sup>2</sup>	
Select one Natural Sciences course	3
Select one Natural Sciences course with a lab	4
<b>Total Semester Credit Hours</b>	<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> One course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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, 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
Two consecutive classes in the same foreign language <sup>1</sup>		6
<b>Total Semester Credit Hours</b>		<b>12</b>

<sup>1</sup> FLAS 114 & FLAS 115 will not fulfill this requirement.

## Program Specific Degree Requirements

(48 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. Application requirements include: completion of all Essential Learning requirements, completion of the two foundation courses (maintaining a 2.0 GPA), completion of the two social work



introductory courses, completion of 60+ credits (junior standing), and a formal application, essay and faculty evaluation. If accepted into the social work program, students will take the social work core courses in sequence as part of a cohort system their junior and senior years.

Code	Title	Semester Credit Hours
<b>Introductory Classes</b>		
SOWK 150	Introduction to Social Work	3
SOWK 210	Social Work for Diverse Populations	3
<b>Core Courses</b>		
<i>Junior Year</i>		
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 Methods	3
<i>Senior Year</i>		
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 Welfare Policy	3
SOWK 494	Social Work Practicum Seminar II	1
SOWK 497	Social Work Practicum II	5
<b>Total Semester Credit Hours</b>		<b>39</b>

Code	Title	Semester Credit Hours
<b>Restricted Electives</b>		
Select three of the following:		9
SOWK 301	Child Welfare	
SOWK 308	Medical Social Work	
SOWK 344	School Social Work	
SOWK 350	Legal Aspects of Social Work	
SOWK 377	Spirituality and Social Work	
SOWK 381	Gerontology and Social Work	
SOWK 396	Topics:	
SOWK 491	Directed Readings	
<b>Total Semester Credit Hours</b>		<b>9</b>

## 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.

Code	Title	Semester Credit Hours
Select electives		23
<b>Total Semester Credit Hours</b>		<b>23</b>

## Recommended General Electives:

Code	Title	Semester Credit Hours
STAT 200	Probability and Statistics-GTMA1	3
CRMJ 201	Introduction to Criminal Justice	3
CRMJ 311	Victimology	3
CRMJ 325	Juvenile Justice and Delinquency	3
CRMJ 330	Intimate Partner Violence	3
PSYC 330	Psychology of Adolescents and Emerging Adulthood	3
PSYC 335	Psychology of Women	3
PSYC 340	Abnormal Psychology	3
PSYC 410	Drugs and Human Behavior	3
PSYP 305	Suicide Intervention Training	1
SOCI 101	Introduction to Lesbian, Gay, Bisexual, and Transgender Studies	3
SOCO 264	Social Problems-GTSS3	3
SOCO 310	Sociology of Religion	3
SOCO 316	Social Inequality	3
SOCO 320	Life Course and Aging	3
SOCO 325	Race and Ethnic Relations	3

## Suggested Course Plan

First Year		Semester Credit Hours
<b>Fall Semester</b>		
ENGL 111	English Composition I-GTC01	3
Essential Learning - Natural Science		3
Essential Learning - Humanities		3
SOWK 150	Introduction to Social Work	3
KINE 100	Health and Wellness	1
General Elective		3
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
ENGL 112	English Composition II-GTC02	3
MATH 110	Mathematical Investigations-GTMA1 (or higher)	3
Essential Learning - History		3
SOWK 210	Social Work for Diverse Populations	3
PSYC 150	General Psychology-GTSS3	3
KINA Activity		1
<b>Semester Credit Hours</b>		<b>16</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
Essential Learning - Fine Arts		3
Foundation Course - Foreign Language		3
Essential Learning - Social and Behavioral Sciences		3
PSYC 233	Human Growth and Development-GTSS3	3
General Electives (2 courses)		5
<b>Semester Credit Hours</b>		<b>17</b>
<b>Spring Semester</b>		
Essential Learning - Natural Science with Lab		4
Essential Learning - Social and Behavioral Sciences		3
Foundation Course - Foreign Language		3
Social Work Restricted Elective		3
ESSL 290	Maverick Milestone	3

ESSL 200	Essential Speech	1
<b>Semester Credit Hours</b>		<b>17</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
SOWK 311	Ethical Issues in Social Work	3
SOWK 365	Social Work Intervention Methods I	3
General Elective		3
Social Work Restricted Electives (2 courses)		6
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
SOWK 320	Social Work Practices in Mental Health	3
SOWK 375	Social Work Intervention Methods II	3
SOWK 387	Social Work Research Methods	3
General Electives (2 courses)		6
<b>Semester Credit Hours</b>		<b>15</b>
<b>Fourth Year</b>		
<b>Fall Semester</b>		
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		3
<b>Semester Credit Hours</b>		<b>12</b>
<b>Spring Semester</b>		
SOWK 460	Social Welfare Policy	3
SOWK 494	Social Work Practicum Seminar II	1
SOWK 497	Social Work Practicum II	5
General Elective		3
<b>Semester Credit Hours</b>		<b>12</b>
<b>Total Semester Credit Hours</b>		<b>120</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Social Work (Minor)

Minor: Social Work  
Program Code: M745

### About This Minor . . .

Social Work is a profession dedicated to social and economic justice. Social workers focus primarily on the needs and empowerment of vulnerable, oppressed, at-risk populations, 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.

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 (<http://www.socialworkers.org/>).

### Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

**To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options."** This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option 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
SOWK 150	Introduction to Social Work	3
SOWK 210	Social Work for Diverse Populations	3
SOWK 301	Child Welfare	3
Select two of the following:		6
SOWK 308	Medical Social Work	
SOWK 344	School Social Work	
SOWK 350	Legal Aspects of Social Work	
SOWK 377	Spirituality and Social Work	
SOWK 381	Gerontology and Social Work	
<b>Total Semester Credit Hours</b>		<b>15</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 her/his 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 her/his 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  
Lowell Heiny Hall 413  
970.248.1696

## Programs of Study Bachelors/Minors

- [Sociology \(BA\)](#) (p. 658)
- [Sociology \(Minor\)](#) (p. 661)

## Sociology (BA)

Degree: Bachelor of Arts  
Major: Sociology  
Program Code: 3728

## About This Major . . .

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](http://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 *Careers 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
<b>English <sup>1</sup></b>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics <sup>1</sup></b>		
MATH 110	Mathematical Investigations-GTMA1	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences <sup>2</sup></b>		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> One course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone <sup>1</sup></b>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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 <sup>1</sup>		6
<b>Total Semester Credit Hours</b>		<b>13</b>

<sup>1</sup> Must earn a grade of "C" or better in each course. FLAS 114 & FLAS 115 will not fulfill this requirement.

## 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
<b>Core Courses</b>		
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
<b>Sociology Electives</b>		
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	
<b>Total Semester Credit Hours</b>		<b>42</b>

Code	Title	Semester Credit Hours
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### 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		
<b>Total Semester Credit Hours</b>		<b>6</b>

## 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
<b>Total Semester Credit Hours</b>		<b>22</b>

## 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
<b>Semester Credit Hours</b>		<b>15</b>

#### 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
<b>Semester Credit Hours</b>		<b>14</b>

### 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
<b>Semester Credit Hours</b>		<b>16</b>

#### 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
<b>Semester Credit Hours</b>		<b>15</b>

### Third Year

#### Fall Semester

SOCO 370	Roots of Sociological Thought	3
Sociology Electives (2 courses)		6
Restricted Elective		3
General Elective		3
<b>Semester Credit Hours</b>		<b>15</b>

#### 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
<b>Semester Credit Hours</b>		<b>15</b>

### Fourth Year

#### Fall Semester

Sociology Electives (2 courses)		6
Restricted Elective		3
General Electives		6
<b>Semester Credit Hours</b>		<b>15</b>

#### Spring Semester

SOCO 493	Senior Capstone	3
Sociology Elective (2 courses)		6
General Electives		6
<b>Semester Credit Hours</b>		<b>15</b>

**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 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Sociology (Minor)

Minor: Sociology  
Program Code: M750

## About This Minor. . .

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 or SOCO 264	Marriage and Families-GTSS3 Social Problems-GTSS3	3
SOCO 202	Introduction to Sociological Inquiry	3
SOCO 260	General Sociology-GTSS3	3
SOCO 370 or SOCO 375	Roots of Sociological Thought Contemporary Sociological Perspectives	3
9 semester hours of upper-division Sociology (SOCO) courses		9
<b>Total Semester Credit Hours</b>		<b>21</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 her/his 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 citizens 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 translation, interpreting, business, and medical, and social services. 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. Here they will examine specific literary genres as well as a variety of the periods, regions, and movements. They can explore language variation in the Hispanic world through Phonetics & Phonology and Sociolinguistics. 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. The Spanish minor is also a perfect complement to any majors. 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 health career, law, engineering, construction management, business, or social work. This ability can open doors in any profession you choose. At 21 credits, the minor easily combines with most majors on campus. 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.

## 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. 663)
- [Hispanic Studies, Spanish \(BA\)](#) (p. 666)
- [Spanish \(Minor\)](#) (p. 669)

## Education: Secondary Education, Spanish (BA)

Degree: Bachelor of Arts  
Major: Spanish  
Concentration: Secondary Education  
Program Code: 3248

### About This Major . . .

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)
2. Spanish Outcome 2: Apply knowledge of the structure of the Spanish language, including syntax, phonetics/phonology, and morphology. (Specialized Knowledge)
3. Spanish Outcome 3: Demonstrate an awareness and appreciation of important literary and artistic movements/works, and cultural aspects in relation to the Spanish-speaking world. (Specialized Knowledge)
4. Spanish Outcome 4: Develop a research project focused on second language acquisition or teaching methodologies. (Critical Thinking)
5. Spanish Outcome 5: Compare commonalities and differences between Hispanic and other U.S. cultures. (Critical Thinking)
6. Spanish Outcome 6: Demonstrate knowledge of linguistic variations that exist in the Spanish-speaking world. (Specialized Knowledge)
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.



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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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>2</sup>		
MATH 110	Mathematical Investigations-GTMA1	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		

PSYC 233	Human Growth and Development-GTSS3 <sup>3</sup>	3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>4</sup>		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
<b>Total Semester Credit Hours</b>		<b>31</b>

- <sup>1</sup> Must receive a grade of "B" or better and must be completed by the time the student has 60 semester hours.
- <sup>2</sup> Must receive a grade of "C" or better, must be completed by the time the student has 60 semester hours.
- <sup>3</sup> Must receive a grade of "B" or better.
- <sup>4</sup> One course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity Course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

- <sup>1</sup> 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.)

- Any combination of FLAS 212, FLAS 301, FLAS 302, and FLAS 303 may also be used to satisfy the foreign language requirements.

Code	Title	Semester Credit Hours
Two consecutive classes in the same foreign language <sup>1</sup>		6
<b>Total Semester Credit Hours</b>		<b>6</b>

- <sup>1</sup> FLAS 114 & FLAS 115 will not fulfill this requirement.

## 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.)

- 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.

Code	Title	Semester Credit Hours
<b>Core Courses</b>		
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
FLAS 498	Spanish Senior Practicum	3
<b>Hispanic Studies</b>		
FLAS 424	Advanced Hispanic Literature	3
or FLAS 446	Spanish Language Variation	
<b>Applied Studies</b>		
Select one of the following:		3
FLAS 431	Spanish for Medical and Social Services	
FLAS 433	Spanish for the Professions	
FLAS 434	Introduction to Translation	
FLAS 435	Introduction to Interpreting	
<b>Total Semester Credit Hours</b>		<b>36</b>

Code	Title	Semester Credit Hours
<b>Restricted Electives</b>		
Select two additional 300- or 400-level FLAS or FLAV courses		6
<b>Total Semester Credit Hours</b>		<b>6</b>

### 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 497	Content Methodology Practicum (80 field experience hours)	3
EDUC 497E	Methods of Teaching Secondary Spanish <sup>1</sup>	2
EDUC 499G	Teaching Internship and Colloquia: Secondary (600 field experience hours)	12
Praxis II Exam Passed		
<b>Total Semester Credit Hours</b>		<b>29</b>

<sup>1</sup> 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.

Code	Title	Semester Credit Hours
Select electives		6
<b>Total Semester Credit Hours</b>		<b>6</b>

## Suggested Course Plan

First Year	Semester Credit Hours
<b>Fall Semester</b>	
Foundation Course <sup>1</sup>	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
<b>Semester Credit Hours</b>	<b>16</b>
<b>Spring Semester</b>	
Foundation Course <sup>2</sup>	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
<b>Semester Credit Hours</b>	<b>15</b>
<b>Second Year</b>	
<b>Fall Semester</b>	
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
<b>Semester Credit Hours</b>	<b>16</b>

<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Fourth Year</b>		
<b>Fall Semester</b>		
EDUC 442	Integrating Literacy Across the Curriculum: Secondary and K-12 Art	3
EDUC 475	Classroom Management for K-12 Educators	1
EDUC 497	Content Methodology Practicum	3
EDUC 497E	Methods of Teaching Secondary Spanish	2
FLAS 498	Spanish Senior Practicum	3
Applied Studies Elective		3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
EDUC 499G	Teaching Internship and Colloquia: Secondary	12
<b>Semester Credit Hours</b>		<b>12</b>
<b>Total Semester Credit Hours</b>		<b>120</b>

<sup>1</sup> Recommended: FLAS 211

<sup>2</sup> 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 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Hispanic Studies, Spanish (BA)

Degree: Bachelor of Arts

Major: Spanish

Concentration: Hispanic Studies

Program Code: 3247

## About This Major . . .

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. Demonstrate an awareness, understanding, and appreciation of important literary and artistic movements/works, linguistics, history,

translation, interpretation, and/or cultural aspects in relation to the Spanish-speaking world. (Specialized Knowledge)

4. Demonstrate knowledge of the linguistic variations that exist in the Spanish-speaking world. (Specialized Knowledge)
5. Develop a research project focused on the application of Spanish in an area of the student's choosing (e.g. analyzes significant literary movements/works and the authors; the application of Spanish in a professional context; second language acquisition or teaching methodologies). (Critical Thinking)
6. Compare commonalities and differences between Hispanic and other U.S. cultures. (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
<b>English <sup>1</sup></b>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics <sup>1</sup></b>		
MATH 110	Mathematical Investigations-GTMA1	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences <sup>2</sup></b>		
Select one Natural Sciences course		3
Select one Natural Sciences course with a lab		4
<b>Total Semester Credit Hours</b>		<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> One course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone <sup>1</sup></b>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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)

- 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.

Code	Title	Semester Credit Hours
Two consecutive classes in the same foreign language <sup>1</sup>		6
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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. FLAS 114 & FLAS 115 will not fulfill this requirement.

## 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.)

- FLAV 496, FLAS 422, FLAS 424, and topics courses 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 major only when taught in Spanish and as approved by your advisor.

Code	Title	Semester Credit Hours
<b>Core Courses</b>		
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
FLAS 498	Spanish Senior Practicum	3
<b>Hispanic Studies</b>		
FLAS 424	Advanced Hispanic Literature	3
or FLAS 446	Spanish Language Variation	
<b>Applied Studies</b>		
Select one of the following:		3
FLAS 431	Spanish for Medical and Social Services	
FLAS 433	Spanish for the Professions	
FLAS 434	Introduction to Translation	
FLAS 435	Introduction to Interpreting	
<b>Total Semester Credit Hours</b>		<b>36</b>

Code	Title	Semester Credit Hours
<b>Restricted Electives</b>		
Select two additional 300- or 400-level FLAS or FLAV courses		6
<b>Total Semester Credit Hours</b>		<b>6</b>

## 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.

Code	Title	Semester Credit Hours
Select electives		35
<b>Total Semester Credit Hours</b>		<b>35</b>

## Suggested Course Plan

Code	Title	Semester Credit Hours
<b>First Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
FLAS 304	Advanced Oral Production and Composition	3
FLAS 305	Advanced Spanish Grammar and Spanish English Contrasts	3

General Electives (3 courses)	9
<b>Semester Credit Hours</b>	<b>15</b>
<b>Spring Semester</b>	
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
<b>Semester Credit Hours</b>	<b>15</b>
<b>Fourth Year</b>	
<b>Fall Semester</b>	
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
<b>Semester Credit Hours</b>	<b>15</b>
<b>Spring Semester</b>	
FLAS 498 Spanish Senior Practicum	3
Applied Studies Elective	3
Restricted Electives (2 courses)	6
<b>Semester Credit Hours</b>	<b>12</b>
<b>Total Semester Credit Hours</b>	<b>120</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Spanish (Minor)

Minor: Spanish  
Program Code: M245

### About This Minor. . .

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 <sup>1</sup>	3
6-7 additional 300- or 400-level FLAS or FLAV courses		18-21
<b>Total Semester Credit Hours</b>		<b>21-24</b>

<sup>1</sup> 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 her/his 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 her/his 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. 673)

## Bachelors/Minors

- [Sport Management \(BS\)](#) (p. 670)
- [Sport Management \(Minor\)](#) (p. 675)

## Graduate

- [Sport Management \(MS\)](#) (p. 676)

## Sport Management (BS)

Degree: Bachelor of Science  
Major: Sport Management  
Program Code: 3147

## About This Major . . .

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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 113	College Algebra-GTMA1 <sup>2</sup>	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>3</sup>		
Select one Natural Sciences course		3



Select one Natural Sciences course with a lab	4
<b>Total Semester Credit Hours</b>	<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.

<sup>2</sup> This is a 4 credit course. 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.

<sup>3</sup> 7 semester hours, one course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select two Activity courses		2
<b>Essential Learning Capstone <sup>1</sup></b>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>7</b>

<sup>1</sup> 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
<b>Total Semester Credit Hours</b>		<b>9</b>

## 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 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 401	Organization/Administration/Legal Considerations in Physical Education and Sports	3

or MARK 335	Sales and Sales Management	
KINE 402	Sport Marketing	3
KINE 406	Governance and Communication in Sport	3
KINE 494A	Sport Management Senior Seminar	1
KINE 499	Internship	12
<b>Total Semester Credit Hours</b>		<b>52</b>

## 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
<b>Total Semester Credit Hours</b>		<b>21</b>

## Suggested Course Plan

### First Year

Fall Semester	Semester Credit Hours	
ENGL 111	English Composition I-GTC01	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
<b>Semester Credit Hours</b>	<b>16</b>	

### Spring Semester

ENGL 112	English Composition II-GTC02	3
CISB 101	Business Information Technology	3
Essential Learning - Humanities		3
Essential Learning - Fine Arts		3
MATH 113	College Algebra-GTMA1	4
<b>Semester Credit Hours</b>	<b>16</b>	

### Second Year

#### Fall Semester

ECON 201	Principles of Macroeconomics-GTSS1	3
Essential Learning - Social and Behavioral Science		3
Elective		3
KINA Activity		1
Essential Learning - Natural Science		3
ACCT 201	Principles of Financial Accounting	3
<b>Semester Credit Hours</b>	<b>16</b>	

#### 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
<b>Semester Credit Hours</b>	<b>17</b>	

### Third Year

#### Fall Semester

KINE 342	Sport Law and Recreation Risk Management	3
KINE 345	Survey of Economics and Finance in Sport	3

Electives (3 courses)		9
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
KINE 335	Sport in Society	3
KINE 340	Sport Operations	3
KINE 350	Leadership and Ethics in Sport	3
KINE 402	Sport Marketing	3
Elective		3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Fourth Year</b>		
<b>Fall Semester</b>		
MARK 335 or KINE 401	Sales and Sales Management or Organization/Administration/Legal Considerations in Physical Education and Sports	3
KINE 406	Governance and Communication in Sport	3
KINE 494A	Sport Management Senior Seminar	1
KINA Activity		1
Electives (2 courses)		5
<b>Semester Credit Hours</b>		<b>13</b>
<b>Spring Semester</b>		
KINE 499	Internship	12
<b>Semester Credit Hours</b>		<b>12</b>
<b>Total Semester Credit Hours</b>		<b>120</b>

If a student's petition for graduation is denied, it will be her/his 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

### About This Major . . .

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/WCCC 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 WCCC Associate of Science (AS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

- 60 semester hours total.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 113	College Algebra-GTMA1 <sup>2</sup>	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>3</sup>		
Select one Natural Sciences course		3

Select one Natural Sciences course with a lab	4
<b>Total Semester Credit Hours</b>	<b>31</b>

- <sup>1</sup> Must receive a grade of "C" or better and must be complete by the time the student has 60 semester hours.
- <sup>2</sup> 3 credits apply to the Essential Learning requirements and 1 credit applies to elective credit.
- <sup>3</sup> 7 semester hours, one course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Total Semester Credit Hours</b>		<b>2</b>

## 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
<b>Total Semester Credit Hours</b>		<b>21</b>

## 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
<b>Total Semester Credit Hours</b>		<b>6</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
MARK 231	Principles of Marketing <sup>1</sup>	3
Essential Learning - Social and Behavioral Science		3
MANG 201	Principles of Management	3
CISB 101	Business Information Technology	3
Elective		2
<b>Semester Credit Hours</b>		<b>14</b>
<b>Total Semester Credit Hours</b>		<b>60</b>

<sup>1</sup> 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 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Sport Management (Minor)

Minor: Sport Management  
Program Code: M103

### About This Minor . . .

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 or KINE 401	Sport Operations Organization/Administration/Legal Considerations in Physical Education and Sports	3
KINE 402 or MARK 402	Sport Marketing Sport Marketing	3
KINE 406	Governance and Communication in Sport	3
<b>Total Semester Credit Hours</b>		<b>24</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 her/his responsibility to consult the Registrar's Office regarding next steps.

## Sport Management (MS)

Degree: Master of Science  
Program of Study: Sport Management  
Program Code: 8150

## About This Program . . .

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 thesis 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.
2. Incorporate a variety of oral and written business and professional communications skills.
3. Practice ethical behavior in the workplace.
4. Incorporate advanced sport management principles and theories.
5. Integrate education in the workplace.

## Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

**To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options."** This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option 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. 81)” 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 thesis or internship-related project.

### Sport Management Core Courses

Code	Title	Semester Credit Hours
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 535	Sport in Society	3
KINE 542	Sport Law and Ethics	3
KINE 550	Contemporary Issues in Sport Management	3
<b>Total Semester Credit Hours</b>		<b>21</b>

### Track Options

Complete either the Thesis Option Track or the Non-Thesis Option Track below:

Code	Title	Semester Credit Hours
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#### Thesis Option Track Requirements

KINE 587	Research	3
KINE 590	Thesis I	3
KINE 592	Thesis II	3
<b>Total Semester Credit Hours</b>		<b>9</b>

Code	Title	Semester Credit Hours
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#### Non-Thesis Option Track Requirements

KINE 520	Management Policies and Regulations in Sport and Fitness	3
KINE 545	Sport Finance	3

KINE 599	Internship	3
<b>Total Semester Credit Hours</b>		<b>9</b>

### Final Requirement

Code	Title	Semester Credit Hours
------	-------	-----------------------

Successful completion of one of the following in the final semester:

Thesis		
Internship-Related Project		

## Suggested Course Plan Thesis Option Suggested Course Sequencing

First Year		Semester Credit Hours
<b>Fall Semester First Mod</b>		
KINE 501	Research Methods	3
KINE 535	Sport in Society	3
<b>Semester Credit Hours</b>		<b>6</b>
<b>Fall Semester Second Mod</b>		
KINE 542	Sport Law and Ethics	3
KINE 550	Contemporary Issues in Sport Management	3
<b>Semester Credit Hours</b>		<b>6</b>
<b>Spring Semester First Mod</b>		
KINE 500	Facility and Equipment Management in Sport and Fitness	3
KINE 502	Sport Marketing	3
<b>Semester Credit Hours</b>		<b>6</b>
<b>Spring Semester Second Mod</b>		
KINE 510	Event and Program Management in Sport and Fitness	3
KINE 590	Thesis I	3
<b>Semester Credit Hours</b>		<b>6</b>
<b>Summer Semester</b>		
KINE 587	Research	3
KINE 592	Thesis II	3
<b>Semester Credit Hours</b>		<b>6</b>
<b>Total Semester Credit Hours</b>		<b>30</b>

## Non-Thesis Option Suggested Course Sequencing

First Year		Semester Credit Hours
<b>Fall Semester First Mod</b>		
KINE 501	Research Methods	3
KINE 535	Sport in Society	3
<b>Semester Credit Hours</b>		<b>6</b>
<b>Fall Semester Second Mod</b>		
KINE 542	Sport Law and Ethics	3
KINE 550	Contemporary Issues in Sport Management	3
<b>Semester Credit Hours</b>		<b>6</b>
<b>Spring Semester First Mod</b>		
KINE 500	Facility and Equipment Management in Sport and Fitness	3
KINE 502	Sport Marketing	3
<b>Semester Credit Hours</b>		<b>6</b>
<b>Spring Semester Second Mod</b>		
KINE 510	Event and Program Management in Sport and Fitness	3

KINE 520	Management Policies and Regulations in Sport and Fitness	3
<b>Semester Credit Hours</b>		<b>6</b>
<b>Summer Semester</b>		
KINE 545	Sport Finance	3
KINE 599	Internship	3
<b>Semester Credit Hours</b>		<b>6</b>
<b>Total Semester Credit Hours</b>		<b>30</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If your petition for graduation is denied, it will be your responsibility to apply for graduation in a subsequent semester. Your "Intent to Graduate" does not automatically move to a later graduation date.

## Statistics

(See [Mathematics](#) (p. 512))

## Studio Art

(See [Art](#) (p. 131))

## Supervision

(see [Business](#) (p. 175))

## Surgical Technology

### Program Description

This program prepares the student to work in surgical operations areas under the supervision of surgeons, registered nurses, or other surgical personnel. The program is accredited by the Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC/STSA). Coursework for an Associate of Applied Science degree as well as coursework in Biology are 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 time and clinical time as described in the course syllabi. Clinical placements will be at surgical site affiliations in western Colorado. The goal of the program is to prepare competent entry-level surgical technologists in the cognitive (thinking), psychomotor (skills), and affective (behavior) learning domains.

This program requires a separate admission to the Program in addition to general admission to CMU. Please contact the Health Sciences Department for further information.

## Contact Information

Department of Health Sciences  
Health Sciences 101  
970.248.1398

## Programs of Study

### Associates

- [Surgical Technology \(AAS\)](#) (p. 678)

## Surgical Technology (AAS)

Degree: Associate of Applied Science  
Major: Surgical Technology  
Program Code: 1651

## About This Major . . .

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/WCCC 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Communication</b>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b>		
MATH 113	College Algebra-GTMA1	4
<b>Other Essential Learning Core Courses</b>		
PSYC 150	General Psychology-GTSS3	3
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
<b>Total Semester Credit Hours</b>		<b>16</b>

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one KINA Activity course		1
<b>Total Semester Credit Hours</b>		<b>2</b>

## Foundation Courses

(12 semester hours)



Code	Title	Semester Credit Hours
BIOL 209	Human Anatomy and Physiology	3
BIOL 209L	Human Anatomy and Physiology Laboratory	1
BIOL 210	Human Anatomy and Physiology II	3
BIOL 210L	Human Anatomy and Physiology II Laboratory	1
BIOL 241	Pathophysiology	4
<b>Total Semester Credit Hours</b>		<b>12</b>

## 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	2
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 I	4
SUTE 212L	Surgical Procedures I Laboratory	3
SUTE 218	Specialty Surgical Procedures	4
SUTE 220	Surgical Clinical I	2
SUTE 230	Surgical Clinical II	3
SUTE 240	Surgical Clinical III	4
<b>Total Semester Credit Hours</b>		<b>35</b>

## Suggested Course Plan

### First Year

Code	Title	Semester Credit Hours
ENGL 111	English Composition I-GTCO1	3
MATH 113	College Algebra-GTMA1	4
BIOL 209	Human Anatomy and Physiology	3
BIOL 209L	Human Anatomy and Physiology Laboratory	1
KINE 100	Health and Wellness	1
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
<b>Semester Credit Hours</b>		<b>15</b>

### 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
<b>Semester Credit Hours</b>		<b>15</b>

### Second Year

Code	Title	Semester Credit Hours
SUTE 200	Medical Terminology in Surgical Technology	2
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
SUTE 212	Surgical Procedures I	4
SUTE 212L	Surgical Procedures I Laboratory	3
SUTE 218	Specialty Surgical Procedures	4
SUTE 220	Surgical Clinical I	2
<b>Semester Credit Hours</b>		<b>13</b>
<b>Summer Semester</b>		
SUTE 230	Surgical Clinical II	3
SUTE 240	Surgical Clinical III	4
<b>Semester Credit Hours</b>		<b>7</b>
<b>Total Semester Credit Hours</b>		<b>65</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## 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](mailto: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. 381)

## 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

Office of Student Services

WCCC, Bishop B102

2508 Blichmann Avenue

970.255.2670

## Programs of Study Associates

- [Sustainable Agriculture \(AAS\)](#) (p. 681)

## Sustainable Agriculture (AAS)

Degree: Associate of Applied Science

Major: Sustainable Agriculture

Program Code: 1310

### About This Major . . .

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 marketing and farming. 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 [WCCC's Programs of Study](#) page.

All CMU/WCCC 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. (Communication Fluency)
2. Apply mathematical and applied physics concepts for industry to meet employment requirements. (Quantitative Fluency)
3. Research, evaluate, synthesize and apply information/data relevant to business, sciences and technical careers. (Critical Thinking)
4. Demonstrate knowledge of 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. (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.

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**Options.** This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Communication</b>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b>		
MATH 108	Technical Mathematics (or higher) <sup>1</sup>	3
<b>Other Essential Learning Core Courses</b>		
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
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<b>Total Semester Credit Hours</b>	<b>15</b>
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<sup>1</sup> 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
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Total Semester Credit Hours</b>		<b>2</b>

## Program Specific Degree Requirements

(37 semester hours, must earn a grade of "C" or better in each course.)

Code	Title	Semester Credit Hours
<b>Agriculture Courses</b>		
AGRS 100	Practical Crop Production	3
AGRS 100L	Practical Crop Production Laboratory	1
AGRS 102	Agriculture Economics	3
AGRS 105	Animal Science	3
AGRS 125	Agricultural Machinery	3
AGRS 205	Farm and Ranch Management	3
AGRS 210	Agricultural Marketing	3
AGRS 240	Introduction to Soil Science	3
AGRS 240L	Introduction to Soil Science Laboratory	1
AGRS 293	Cooperative Experience	5
<b>Total Semester Credit Hours</b>		<b>28</b>

Code	Title	Semester Credit Hours
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### Restricted Electives

Select 9 semester hours of the following. See recommended advising tracks.	9
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ACCT 201	Principles of Financial Accounting	
AGRS 103	Introduction to Entomology	
AGRS 103L	Introduction to Entomology Laboratory	
AGRS 108	Composting	
AGRS 110	Integrated Pest Management	
AGRS 118	Farm Structures and Green Houses	
AGRS 208	Agricultural Finance	
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 260	Plant Propagation	

AGRS 288	Livestock Practicum	
AGRS 296	Topics:	
CISB 101	Business Information Technology	
<b>Total Semester Credit Hours</b>		<b>9</b>

## General Electives

(6 semester hours)

Code	Title	Semester Credit Hours
MATH 108	Technical Mathematics	1
Select Additional Electives		5
<b>Total Semester Credit Hours</b>		<b>6</b>

## Suggested Course Plan Animal Science Advising Sheet

First Year

Fall Semester

Code	Title	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	3
AGRS 105	Animal Science	3
<b>Semester Credit Hours</b>		<b>14</b>

Spring Semester

ENGL 111	English Composition I-GTCO1	3
AGRS 230	Farm Animal Anatomy and Physiology	3
AGRS 102	Agriculture Economics	3
AGRS 205	Farm and Ranch Management	3
Essential Learning - Social Science, Natural Science, Fine Arts, or Humanities		3
<b>Semester Credit Hours</b>		<b>15</b>

Summer Semester

AGRS 293	Cooperative Experience	5
<b>Semester Credit Hours</b>		<b>5</b>

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
AGRS 250	Live Animal and Carcass Evaluation	1
AGRS 250L	Live Animal and Carcass Evaluation Laboratory	2
Essential Learning - Social and Behavioral Sciences, Natural Sciences, Fine Arts, or Humanities		3
<b>Semester Credit Hours</b>		<b>13</b>

Spring Semester

KINA 1XX	Activity	1
KINE 100	Health and Wellness	1
AGRS 210	Agricultural Marketing	3
AGRS 288	Livestock Practicum	3
AGRS 225	Feeds and Feeding	4
AGRS 296	Topics: (Sustainable Agriculture Practices)	1-3
General Electives (if needed)		2
<b>Semester Credit Hours</b>		<b>15-17</b>
<b>Total Semester Credit Hours</b>		<b>62-64</b>

## 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	3
AGRS 105	Animal Science	3
<b>Semester Credit Hours</b>		<b>14</b>

Spring Semester

ENGL 111	English Composition I-GTCO1	3
AGRS 102	Agriculture Economics	3
AGRS 103	Introduction to Entomology	2
AGRS 103L	Introduction to Entomology Laboratory	1
AGRS 205	Farm and Ranch Management	3
Essential Learning - Social Science, Natural Science, Fine Arts, or Humanities		3
<b>Semester Credit Hours</b>		<b>15</b>

Summer Semester

AGRS 293	Cooperative Experience	5
<b>Semester Credit Hours</b>		<b>5</b>

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
AGRS 260	Plant Propagation	3
General Elective <sup>1</sup>		3
<b>Semester Credit Hours</b>		<b>13</b>

Spring Semester

KINA 1XX	Activity	1
KINE 100	Health and Wellness	1
Essential Learning - Social Science, Natural Science, Fine Arts, or Humanities		3
AGRS 210	Agricultural Marketing	3
AGRS 110	Integrated Pest Management	3
General Elective		2
<b>Semester Credit Hours</b>		<b>13</b>

**Total Semester Credit Hours** **60**

<sup>1</sup> AGRS 108 is suggested.

## Bio-Agriculture 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	3
AGRS 105	Animal Science	3
<b>Semester Credit Hours</b>		<b>14</b>

Spring Semester

ENGL 111	English Composition I-GTCO1	3
AGRS 102	Agriculture Economics	3
AGRS 103	Introduction to Entomology	2
AGRS 103L	Introduction to Entomology Laboratory	1
AGRS 205	Farm and Ranch Management	3
Essential Learning - Social Science, Natural Science, Fine Arts, or Humanities		3
<b>Semester Credit Hours</b>		<b>15</b>

Summer Semester		
AGRS 293	Cooperative Experience	5
<b>Semester Credit Hours</b>		<b>5</b>
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
AGRS 260	Plant Propagation	3
AGRS 296 or AGRS 108	Topics: or Composting	3
<b>Semester Credit Hours</b>		<b>13</b>
Spring Semester		
KINA 1XX	Activity	1
KINE 100	Health and Wellness	1
Essential Learning - Social Science, Natural Science, Fine Arts, or Humanities		3
AGRS 210	Agricultural Marketing	3
AGRS 110	Integrated Pest Management	3
General Elective		2
<b>Semester Credit Hours</b>		<b>13</b>
<b>Total Semester Credit Hours</b>		<b>60</b>

## Agriculture Business Advising Sheet

First Year		Semester Credit Hours
Fall Semester		
MATH 108	Technical Mathematics	4
AGRS 100	Practical Crop Production	3
AGRS 100L	Practical Crop Production Laboratory	1
AGRS 105	Animal Science	3
ACCT 201	Principles of Financial Accounting	3
<b>Semester Credit Hours</b>		<b>14</b>
Spring Semester		
ENGL 111	English Composition I-GTCO1	3
AGRS 102	Agriculture Economics	3
AGRS 205	Farm and Ranch Management	3
CISB 101	Business Information Technology	3
Essential Learning - Social Science, Natural Science, Fine Arts, or Humanities		3
<b>Semester Credit Hours</b>		<b>15</b>
Summer Semester		
AGRS 293	Cooperative Experience	5
<b>Semester Credit Hours</b>		<b>5</b>
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
AGRS 125	Agricultural Machinery	3
AGRS 208	Agricultural Finance	3
<b>Semester Credit Hours</b>		<b>13</b>
Spring Semester		
KINA 1XX	Activity	1
KINE 100	Health and Wellness	1
Essential Learning - Social Science, Natural Science, Fine Arts, or Humanities		3
AGRS 210	Agricultural Marketing	3
General Elective		2
General Elective		3
<b>Semester Credit Hours</b>		<b>13</b>
<b>Total Semester Credit Hours</b>		<b>60</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Teacher Education

(See [Art](#) (p. 131), [Early Childhood Education](#) (p. 302), [Education: Teacher Licensure](#) (p. 316), [English](#) (p. 359), [History](#) (p. 428), [Kinesiology](#) (p. 457), [Liberal Arts](#) (p. 470), [Mathematics](#) (p. 512), [Music](#) (p. 549), and [Social Science](#) (p. 651) 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.

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 to not only take directing classes but also direct full productions as part of the performance season. The program is large enough to tackle ambitious projects and yet small and flexible enough to tailor to students' particular 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 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).

Dance at CMU is thriving, with an array of dance styles, performance opportunities, and travel. Equal emphasis is placed on Modern, Jazz, Ballet, and Tap with course offerings from beginner to advanced levels. The faculty members have professional backgrounds across multiple forms of dance. With four dance concerts a year, Colorado Mesa University faculty and students choreograph and invite visiting guest artists from the professional dance world. Students annually travel to American College Dance Association, conferences, and engage in local and state outreach. The BFA 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 Design/Technology major, we cultivate daring artistic and scholarly pioneers 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 are active supporters of each other. This is an intimate and rigorous program. We give personalized attention to students with a specific focus on making students 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, the teaching of theatre, 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 acting/directing, music theatre, 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 [MUSA 130](#) and [MUSA 131](#). [MUSA 130](#) and [MUSA 131](#) 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. 685)
- [Design/Technology, Theatre Arts \(BFA\)](#) (p. 692)
- [Music Theatre, Theatre Arts \(BFA\)](#) (p. 689)
- [Theatre \(Minor\)](#) (p. 699)
- [Theatre Arts, General \(BA\)](#) (p. 696)

## Acting/Directing, Theatre Arts (BFA)

Degree: Bachelor of Fine Arts  
Major: Theatre Arts  
Concentration: Acting/Directing  
Program Code: 3265

## About This Major . . .

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, and 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)
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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 110	Mathematical Investigations-GTMA1	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		

Select one Fine Arts course	3
<b>Natural Sciences</b> <sup>2</sup>	
Select one Natural Sciences course with a lab	4
Select one Natural Sciences course	3
<b>Total Semester Credit Hours</b>	<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> One course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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 <sup>1</sup>		3
<b>Total Semester Credit Hours</b>		<b>18</b>

<sup>1</sup> FLAS 114 & FLAS 115 will NOT fulfill this requirement. 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
<b>Core Courses</b>		
THEA 117 or THEA 118	Play Production	1
THEA 142	Make-up	3
THEA 145	Introduction to Dramatic Literature-GTAH1	3
THEA 156	Acting II: Contemporary Scenework	3
THEA 217 or THEA 218	Play Production	1
THEA 253	Acting IV: Stage Movement	3
THEA 256	Auditions	3
THEA 317 or THEA 318	Play Production	1
THEA 331	Theatre History I: 400 B.C. to 1642	3
THEA 332	Theatre History II: From 1642 to the Present	3
THEA 381	Directing I	3
THEA 417 or THEA 418	Play Production	1
THEA 401	Career Preparation	3
THEA 494	Performance Seminar: Acting/Directing and Musical Theatre Capstone	3
THEA 353	Advanced Acting: Styles in Acting	3
THEA 454	Acting V: Shakespeare	3
<b>Advanced Acting</b>		
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	
<b>Theatre Options</b>		
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	
<b>Performance Options</b>		
Select three semester hours of the following:		3
THEA 119	Technical Performance	
THEA 120	Technical Performance	
THEA 219	Technical Performance	
THEA 220	Technical Performance	
THEA 319	Technical Performance	
THEA 320	Technical Performance	
THEA 419	Technical Performance	
THEA 420	Technical Performance	
THEA 147	Drama Performance	



THEA 148	Drama Performance
THEA 247	Drama Performance
THEA 248	Drama Performance
THEA 347	Drama Performance
THEA 348	Drama Performance
THEA 447	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**

## 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. 4 semester hours, additional hours of upper division hours may be needed.

Code	Title	Semester Credit Hours
Select electives		4
<b>Total Semester Credit Hours</b>		<b>4</b>

## 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		Semester
Fall 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 117	Play Production (fall or spring)	0-1
THEA 153	Acting I: Beginning Acting	3
<b>Semester Credit Hours</b>		<b>15-16</b>
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 118	Play Production (fall or spring)	0-1
THEA 130	Script Analysis	3
THEA 145	Introduction to Dramatic Literature-GTAH1	3
THEA 156	Acting II: Contemporary Scenework	3
<b>Semester Credit Hours</b>		<b>15-16</b>

### 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
THEA 217	Play Production (fall or spring)	0-1
Performance Option		1
<b>Semester Credit Hours</b>		<b>14-15</b>

#### Spring Semester

ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Essential Learning - Humanities		3
KINA Activity		1
THEA 218	Play Production (fall or spring)	0-1
THEA 253	Acting IV: Stage Movement	3
Theatre Option		3
Performance Option		1
<b>Semester Credit Hours</b>		<b>15-16</b>

### Third Year

#### Fall Semester

Essential Learning - Social/Behavioral Sciences		3
THEA 317	Play Production (fall or spring)	0-1
THEA 331	Theatre History I: 400 B.C. to 1642	3
THEA 381	Directing I	3
THEA 454	Acting V: Shakespeare	3
Theatre Option		3
Performance Option		1
<b>Semester Credit Hours</b>		<b>16-17</b>

#### Spring Semester

Essential Learning - Social/Behavioral Sciences		3
THEA 142	Make-up	3
THEA 318	Play Production (fall or spring)	0-1
THEA 332	Theatre History II: From 1642 to the Present	3
THEA 353	Advanced Acting: Styles in Acting	3
Advanced Acting Option		3
<b>Semester Credit Hours</b>		<b>15-16</b>

### Fourth Year

#### Fall Semester

Essential Learning - Natural Science with Lab		4
THEA 401	Career Preparation	3
THEA 417	Play Production (fall or spring)	0-1
Advanced Acting Option		3
Electives		5
<b>Semester Credit Hours</b>		<b>15-16</b>

#### Spring Semester

THEA 353	Advanced Acting: Styles in Acting or Auditions	3
THEA 418	Play Production (fall or spring)	0-1
THEA 494	Performance Seminar: Acting/Directing and Musical Theatre Capstone	3
Advanced Acting Option		3
Electives		6
<b>Semester Credit Hours</b>		<b>15-16</b>

**Total Semester Credit Hours** **120-128**

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his 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

## About This Major . . .

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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 110	Mathematical Investigations-GTMA1	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>2</sup>		
Select one Natural Sciences course		3

Select one Natural Sciences course with a lab	4
<b>Total Semester Credit Hours</b>	<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> One course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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 <sup>1</sup>		3
<b>Total Semester Credit Hours</b>		<b>12</b>

<sup>1</sup> FLAS 114 & FLAS 115 will not fulfill this requirement. 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 deficient in piano skills will be required to complete MUSA 130 and MUSA 131. MUSA 130 and MUSA 131 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.
- 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
<b>Core Courses</b>		
THEA 117	Play Production	1

or THEA 118	Play Production	
THEA 156	Acting II: Contemporary Scenework	3
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

#### Ballet Technique Courses

Select two of 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 of 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 of 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 of the following:		3
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THEA 119	Technical Performance	
THEA 120	Technical Performance	
THEA 219	Technical Performance	
THEA 220	Technical Performance	
THEA 319	Technical Performance	
THEA 320	Technical Performance	
THEA 419	Technical Performance	
THEA 420	Technical Performance	
THEA 147	Drama Performance	
THEA 148	Drama Performance	
THEA 247	Drama Performance	
THEA 248	Drama Performance	
THEA 347	Drama Performance	
THEA 348	Drama Performance	
THEA 447	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 semester hours from ANY Theatre, Music, or Dance course	4
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**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
<b>Total Semester Credit Hours</b>		<b>13</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
ENGL 111	English Composition I-GTC01	3
MUSA 114	Theory I-Introduction	3
MUSA 116	Ear Training and Sightsinging I	2
MUSL 137	Voice	1
THEA 117	Play Production (fall or spring)	1
THEA 153	Acting I: Beginning Acting	3
DANC - Tap/Jazz/Ballet	Performance Option	2
		1
<b>Semester Credit Hours</b>		<b>16</b>
Spring Semester		
ENGL 112	English Composition II-GTC02	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
<b>Semester Credit Hours</b>		<b>14</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
DANC - Tap/Jazz/Ballet		2
Essential Learning - Social and Behavioral Sciences		3
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
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
DANC - Tap/Jazz/Ballet		2
Foundation Course - Foreign Language		3
MUSL 337	Voice	1
THEA 142	Make-up	3
THEA 253	Acting IV: Stage Movement	3
THEA 355	Music Theatre Repertoire	3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
Essential Learning - Natural Science		3
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
Essential Learning - Humanities		3
Music Theatre Support Course		2
DANC - Tap/Jazz/Ballet		2
MUSL 337	Voice	1
THEA 316	Music Theatre Workshop	1
<b>Semester Credit Hours</b>		<b>16</b>
<b>Fourth Year</b>		
<b>Fall Semester</b>		
Essential Learning - Fine Arts		3
MUSL 437	Voice	1
THEA 401	Career Preparation	3
Electives		6
<b>Semester Credit Hours</b>		<b>13</b>
<b>Spring Semester</b>		
KINA Activity		1
THEA 494	Performance Seminar: Acting/Directing and Musical Theatre Capstone	3
THEA 416	Music Theatre Workshop	1
Music Theatre Support Course		2
MUSL 437	Voice	1
Electives		7
<b>Semester Credit Hours</b>		<b>15</b>
<b>Total Semester Credit Hours</b>		<b>120</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his 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

## About This Major . . .

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), and 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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 110	Mathematical Investigations-GTMA1	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>2</sup>		
Select one Natural Sciences course		3

Select one Natural Sciences course with a lab	4
<b>Total Semester Credit Hours</b>	<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> One course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone <sup>1</sup></b>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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
<i>Introduction to Theatre Technology Courses</i>		
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
<b>Total Semester Credit Hours</b>		<b>18</b>

## 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
<b>Core Courses</b>		
THEA 145	Introduction to Dramatic Literature-GTAH1	3
THEA 217	Play Production	1
THEA 218	Play Production	1
THEA 313	Rendering for Theatre	3

or THEA 323	Computer Aided Drafting for the Theatre	
THEA 317	Play Production	1
THEA 318	Play Production	1
THEA 322	Stage Management	3
THEA 331	Theatre History I: 400 B.C. to 1642	3
THEA 332	Theatre History II: From 1642 to the Present	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 417	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

<i>Select 6 credit hours from the following:</i>		6
THEA 142	Make-up	
THEA 323	Computer Aided Drafting for the Theatre <sup>1</sup>	
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

<i>Select 8 credit hours from the following:</i>		8
THEA 119	Technical Performance	
THEA 120	Technical Performance	
THEA 219	Technical Performance	
THEA 220	Technical Performance	
THEA 319	Technical Performance	
THEA 320	Technical Performance	
THEA 419	Technical Performance	
THEA 420	Technical Performance	
THEA 147	Drama Performance	
THEA 148	Drama Performance	
THEA 247	Drama Performance	
THEA 248	Drama Performance	
THEA 347	Drama Performance	
THEA 348	Drama Performance	
THEA 447	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**

<sup>1</sup> 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
<b>Total Semester Credit Hours</b>		<b>6</b>

Code	Title	Semester Credit Hours
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### 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 122	Design It	3
ARTG 215	Graphic Design I	3
ARTG 221	Graphic Design II	3
ARTG 337	Illustration III	3
Any ARTH Course		Varies
ARTS 151	Foundation Drawing I	3
ARTS 221	Metalsmithing	3
ARTS 251	Life Drawing	3
ARTS 252	Mixed Media Drawing	3
HMG1 101	Travel Industry I	3
HMG1 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
MATH 110	Mathematical Investigations-GTMA1 (or higher)	3
THEA 202	Elements of Theatrical Design	3
KINA Activity		1

Introduction to Theatre Technology course	3
Introduction to Theatre Technology course	3
Technical, Drama, or Dance Performance	1
<b>Semester Credit Hours</b>	<b>17</b>

### Spring Semester

Essential Learning - Fine Arts	3	
ENGL 112	English Composition II-GTCO2	3
KINE 100	Health and Wellness	1
THEA 130	Script Analysis	3
Introduction to Theatre Technology course	3	
Technical, Drama, or Dance Performance	1	
<b>Semester Credit Hours</b>	<b>14</b>	

### Second Year

#### Fall Semester

Essential Learning - Natural Science with Lab	4	
THEA 150	Fundamentals of Acting	3
THEA 217	Play Production	1
THEA 313	Rendering for Theatre	3
or THEA 323	or Computer Aided Drafting for the Theatre	
THEA 344	Lighting Design	3
Technical, Drama, or Dance Performance	1	
<b>Semester Credit Hours</b>	<b>15</b>	

#### Spring Semester

Essential Learning - Social and Behavioral Sciences	3	
THEA 145	Introduction to Dramatic Literature-GTAH1	3
THEA 218	Play Production	1
THEA 333	Art, Architecture and Fashion: Prehistory to the Present	3
THEA 342	Sound Design	3
Technical, Drama, or Dance Performance	1	
<b>Semester Credit Hours</b>	<b>14</b>	

### Third Year

#### Fall Semester

ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
THEA 317	Play Production	1
THEA 331	Theatre History I: 400 B.C. to 1642	3
THEA 343	Scene Design	3
THEA 381	Directing I	3
Technical, Drama, or Dance Performance	1	
<b>Semester Credit Hours</b>	<b>15</b>	

#### Spring Semester

Essential Learning - Social and Behavioral Sciences	3	
Essential Learning - Humanities	3	
THEA 318	Play Production	1
THEA 322	Stage Management	3
THEA 332	Theatre History II: From 1642 to the Present	3
THEA 340	Costume Design	3
Technical, Drama, or Dance Performance	1	
<b>Semester Credit Hours</b>	<b>17</b>	

### Fourth Year

#### Fall Semester

Essential Learning - Natural Science	3	
THEA 401	Career Preparation	3
THEA 417	Play Production	1
General Elective	3	
Design/Technology Emphasis Option	3	
Technical, Drama, or Dance Performance	1	
<b>Semester Credit Hours</b>	<b>14</b>	

#### Spring Semester

Essential Learning - History	3	
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
<b>Semester Credit Hours</b>	<b>14</b>
<b>Total Semester Credit Hours</b>	<b>120</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his 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

### About This Major . . .

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 Bachelor of Arts' 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 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 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)
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
<b>English</b> <sup>1</sup>		
ENGL 111	English Composition I-GTCO1	3
ENGL 112	English Composition II-GTCO2	3
<b>Mathematics</b> <sup>1</sup>		
MATH 110	Mathematical Investigations-GTMA1	3
<b>History</b>		
Select one History course		3
<b>Humanities</b>		
Select one Humanities course		3
<b>Social and Behavioral Sciences</b>		
Select one Social and Behavioral Sciences course		3
Select one Social and Behavioral Sciences course		3
<b>Fine Arts</b>		
Select one Fine Arts course		3
<b>Natural Sciences</b> <sup>2</sup>		
Select one Natural Sciences course		3

Select one Natural Sciences course with a lab	4
<b>Total Semester Credit Hours</b>	<b>31</b>

<sup>1</sup> Must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.

<sup>2</sup> One course must include a lab.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Essential Learning Capstone</b> <sup>1</sup>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
<b>Total Semester Credit Hours</b>		<b>6</b>

<sup>1</sup> 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
THEA 130	Script Analysis	3
THEA 153	Acting I: Beginning Acting	3
MANG 201	Principles of Management	3
MARK 231	Principles of Marketing	3
Select one of the following:		3
THEA 141	Theatre Appreciation-GTAH1	
DANC 115	Dance Appreciation-GTAH1	
FINE 101	The Living Arts-GTAH1	
Two consecutive classes in the same foreign language <sup>1</sup>		6
Select three of 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	
<b>Total Semester Credit Hours</b>		<b>27</b>

<sup>1</sup> FLAS 114 & FLAS 115 will not fulfill this requirement.

## Program-Specific Degree Requirements

(29 semester hours, must maintain a minimum 2.0 cumulative GPA in coursework in this area.)

Code	Title	Semester Credit Hours
<b>History</b>		
Select two of the following:		6
THEA 331	Theatre History I: 400 B.C. to 1642	
THEA 332	Theatre History II: From 1642 to the Present	
DANC 315	History and Philosophy of Dance I	
DANC 316	History and Philosophy of Dance II	
THEA 341	Musical Theatre History and Literature	
<b>Practice</b>		
Select eight of the following:		8
THEA 147	Drama Performance	
THEA 148	Drama Performance	
THEA 247	Drama Performance	
THEA 248	Drama Performance	
THEA 347	Drama Performance	
THEA 348	Drama Performance	
THEA 447	Drama Performance	
THEA 448	Drama Performance	
DANC 156	Dance Performance	
DANC 256	Dance Performance	
DANC 356	Dance Performance	
DANC 456	Dance Performance	
THEA 119	Technical Performance	
THEA 120	Technical Performance	
THEA 219	Technical Performance	
THEA 220	Technical Performance	
THEA 319	Technical Performance	
THEA 320	Technical Performance	
THEA 419	Technical Performance	
THEA 420	Technical Performance	
THEA 117	Play Production	
THEA 118	Play Production	
THEA 217	Play Production	
THEA 218	Play Production	
THEA 317	Play Production	
THEA 318	Play Production	
THEA 417	Play Production	
THEA 418	Play Production	
<b>Career Preparation and Capstone</b>		
THEA 401	Career Preparation	3
THEA 494	Performance Seminar: Acting/Directing and Musical Theatre Capstone	3
<b>Total Semester Credit Hours</b>		<b>20</b>
<b>Restricted Electives</b>		
9 semester hours chosen from THEA, DANC, or SPCH		9
<b>Total Semester Credit Hours</b>		<b>9</b>

## General Electives

All college level courses appearing on your final transcript, not listed above that will bring your total semester hours to 120 hours. 27 semester hours.

Code	Title	Semester Credit Hours
Select electives		27
<b>Total Semester Credit Hours</b>		<b>27</b>

## Suggested Course Plan

First Year		Semester Credit Hours
<b>Fall Semester</b>		
ENGL 111	English Composition I-GTC01	3
MATH 110	Mathematical Investigations-GTMA1 (or higher)	3
KINA Activity		1
Practice Option		1
THEA 153	Acting I: Beginning Acting	3
Foundation Course - Introduction to Theatre Technology		2
Foundation Course - Introduction to Theatre Technology		2
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
ENGL 112	English Composition II-GTC02	3
KINE 100	Health and Wellness	1
Practice Option		1
THEA 130	Script Analysis	3
Select one of the following:		3
THEA 141	Theatre Appreciation-GTAH1	
DANC 115	Dance Appreciation-GTAH1	
FINE 101	The Living Arts-GTAH1	
Foundation Course - Introduction to Theatre Technology		2
<b>Semester Credit Hours</b>		<b>13</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
Essential Learning - Natural Science with Lab		4
Foundation Course - Foreign Language		3
MANG 201	Principles of Management	3
Restricted Elective		3
Practice Option		1
<b>Semester Credit Hours</b>		<b>14</b>
<b>Spring Semester</b>		
Essential Learning - Social and Behavioral Sciences		3
Essential Learning - Social and Behavioral Sciences		3
MARK 231	Principles of Marketing	3
Foundation Course - Foreign Language		3
Restricted Elective		3
Practice Option		1
<b>Semester Credit Hours</b>		<b>16</b>
<b>Third Year</b>		
<b>Fall Semester</b>		
ESSL 290	Maverick Milestone	3
ESSL 200	Essential Speech	1
History Option		3
Restricted Elective		3
Elective		3
Practice Option		1
<b>Semester Credit Hours</b>		<b>14</b>

<b>Spring Semester</b>		
Essential Learning - Natural Science		3
Essential Learning - Humanities		3
History Option		3
Electives (2 courses)		6
Practice Option		1
<b>Semester Credit Hours</b>		<b>16</b>
<b>Fourth Year</b>		
<b>Fall Semester</b>		
Essential Learning - Fine Arts		3
THEA 401	Career Preparation	3
Electives (3 courses)		9
Practice Option		1
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
THEA 494	Performance Seminar: Acting/Directing and Musical Theatre Capstone	3
Essential Learning - History		3
Electives (3 courses)		9
Practice Option		1
<b>Semester Credit Hours</b>		<b>16</b>
<b>Total Semester Credit Hours</b>		<b>120</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Theatre (Minor)

Minor: Theatre  
Program Code: M270

## About This Minor. . .

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

(22 semester hours)

Code	Title	Semester Credit Hours
Select one of the following courses: <sup>1</sup>		1
THEA 117	Play Production	
THEA 118	Play Production	
THEA 145	Introduction to Dramatic Literature-GTAH1	3
THEA 153	Acting I: Beginning Acting	3
Select six semester hours of 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	
THEA 142	Make-up	
THEA 333	Art, Architecture and Fashion: Prehistory to the Present	
THEA 196/296/396/496	Topics	
Select nine semester hours of the following:		9
THEA 322	Stage Management	
THEA 331	Theatre History I: 400 B.C. to 1642	
THEA 353	Advanced Acting: Styles in Acting	
THEA 380	Playwriting I	
THEA 401	Career Preparation	
THEA 403	Methods of Teaching Drama and Speech	
THEA 411	American Drama	
THEA 412	Contemporary Drama	
<b>Total Semester Credit Hours</b>		<b>22</b>

<sup>1</sup> Note: THEA 117 is Fall, THEA 118 is Spring.

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 her/his 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 of two certificates and/or an Associate of Applied Science automotive degree and a certificate and/or Associate of Applied Science degree in diesel technology. The focus of the programs is the repair of late-model vehicles, with the emphasis on the computer controls.

The program is accredited by the ASE Education Foundation (Formerly NATEF, the National Automotive Technicians Education Foundation) as a Master Automotive Service Technician program. The courses prepare the student to take the ASE, Automotive Service Excellence, certification examinations; the ASE examinations are administered at CMU quarterly.

By successfully completing a technical certificate or an Associate of Applied Science in Transportation Services, 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.

### Special Requirements

Excellent dexterity, eye-hand coordination, and critical thinking is a plus for a technician. Proper selection, care and safe use of power, hand and diagnostic tools, and equipment is emphasized.

### Contact Information

Office of Student Services  
WCCC, Bishop B102  
2508 Blichmann Avenue  
970.255.2670

### Programs of Study Associates

- [Advanced Automotive Service Technician, Transportation Services \(AAS\)](#) (p. 701)
- [Diesel Technology, Transportation Services \(AAS\)](#) (p. 703)

### Certificates

- [Automotive Service Technician, Transportation Services \(Technical Certificate\)](#) (p. 705)
- [Diesel Mechanics, Transportation Services \(Technical Certificate\)](#) (p. 707)
- [Light Duty Automotive Technician Foundations I, Transportation Services \(Technical Certificate\)](#) (p. 709)

- [Light Duty Automotive Technician Foundations II, Transportation Services \(Technical Certificate\)](#) (p. 710)
- [Light Duty Automotive Technician, Transportation Services \(Technical Certificate\)](#) (p. 712)

## Advanced Automotive Service Technician, Transportation Services (AAS)

Degree: Associate of Applied Science

Major: Transportation Services

Emphasis: Advanced Automotive Service Technician

Program Code: 1386

### About This Major . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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 findings 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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:

- 70 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
<b>Communication</b>		
ENGL 111	English Composition I-GTC01	3
Select one of the following courses:		3
ENGL 112	English Composition II-GTC02	
SPCH 101	Interpersonal Communications	
SPCH 102	Speechmaking	
<b>Mathematics</b>		
MATH 107	Career Math (or higher)	3
<b>Other Essential Learning Core Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>15</b>

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
KINA 1XX	Activity Course	1
<b>Total Semester Credit Hours</b>		<b>2</b>

## Program Specific Degree Requirements

(53 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
<b>Required Courses</b>		
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
CADT 101	Introduction to Computers	1
<b>Total Semester Credit Hours</b>		<b>45</b>

Code	Title	Semester Credit Hours
<b>Restricted Electives</b>		
Select a minimum of 8 semester hours of the following:		8
TSTG 150	Fluid Power	
TSTG 215	Engine Reconditioning	
TSTG 240	Job Shop	
TSTG 270	Practical Applications	
TSTG 275	ABS Diagnostics	
TSTD 265	Diesel Engine Controls	
<b>Total Semester Credit Hours</b>		<b>8</b>

## Suggested Course Plan

First Year	Semester Credit Hours	
<b>Fall Semester</b>		
TSTC 100	Introduction to Transportation Services	2
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-GTC01	3
MATH 107	Career Math (or higher)	3
KINE 100	Health and Wellness	1
KINA 1XX	Activity Course	1
<b>Semester Credit Hours</b>		<b>18</b>
<b>Spring Semester</b>		
TSTC 101	Vehicle Service and Inspection	3
TSTC 130	Electrical I (first mod)	2
TSTC 160	Electrical II (second mod)	2
TSTG 135	Starting and Charging Systems	2
CADT 101	Introduction to Computers	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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
Select one of the following:		3
ENGL 112	English Composition II-GTC02	
SPCH 101	Interpersonal Communications	
SPCH 102	Speechmaking	
TSTA 245	Manual Drive Trains	4
or TSTA 247	or Automatic Drive Train Service	
TSTA 265	Engine Control Services	3
TSTA 275	Alignment and Suspension Service	3
TSTG 220	Workplace Skills	3

TSTA/D/G - Restrictive Electives (2)	2	
<b>Semester Credit Hours</b>	<b>18</b>	
<b>Spring Semester</b>		
TSTA 267	Body Controls	3
TSTA 286	Hybrid and Alternative Fueled Vehicles	2
TSTA 287	Engine Performance and Emissions	3
TSTG 195	Climate Control	4
TSTA/D/G - Restricted Electives (6)	6	
<b>Semester Credit Hours</b>	<b>18</b>	
<b>Total Semester Credit Hours</b>	<b>70</b>	

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Diesel Technology, Transportation Services (AAS)

Degree: Associate of Applied Science  
Major: Transportation Services  
Emphasis: Diesel Technology  
Program Code: 1342

## About This Major . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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 findings 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 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. (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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Communication</b>		
ENGL 111	English Composition I-GTC01	3
Select one of the following courses:		3
ENGL 112	English Composition II-GTC02	
SPCH 101	Interpersonal Communications	
SPCH 102	Speechmaking	
<b>Mathematics</b>		
MATH 107	Career Math (or higher)	3
<b>Other Essential Learning Core Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>15</b>

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Total Semester Credit Hours</b>		<b>2</b>

## 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
<b>Required Courses</b>		
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 150	Fluid Power	3
TSTG 175	Brakes II	2
TSTG 195	Climate Control	4
TSTG 220	Workplace Skills	3
TSTA 286	Hybrid and Alternative Fueled Vehicles	2
TSTD 265	Diesel Engine Controls	3
TSTD 275	Heavy Duty Suspension	2
TSTD 177	Air Systems Repair and Service	2
<b>Total Semester Credit Hours</b>		<b>38</b>

Code	Title	Semester Credit Hours
<b>Restricted Electives</b>		
Select 8 semester hours of the following:		8
TSTA 245	Manual Drive Trains	
TSTA 267	Body Controls	
TSTA 275	Alignment and Suspension Service	
TSTA 287	Engine Performance and Emissions	
TSTG 215	Engine Reconditioning	
TSTG 240	Job Shop	
TSTG 270	Practical Applications	

WELD 151	Introduction to Welding	
<b>Total Semester Credit Hours</b>		<b>8</b>

## Suggested Course Plan

### First Year

		Semester Credit Hours
TSTC 100	Introduction to Transportation Services	2
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
MATH 107	Career Math (or higher)	3
TSTA/G/D - Restricted Electives		2
<b>Semester Credit Hours</b>		<b>15</b>

### Spring Semester

TSTC 101	Vehicle Service and Inspection	3
TSTC 130	Electrical I (first mod)	2
TSTC 160	Electrical II (second mod)	2
TSTG 150	Fluid Power	3
TSTG 195	Climate Control	4
ENGL 111	English Composition I-GTCO1	3
<b>Semester Credit Hours</b>		<b>17</b>

### Second Year

#### Fall Semester

Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
Select one of the following:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communications	
SPCH 102	Speechmaking	
KINE 100	Health and Wellness	1
TSTD 275	Heavy Duty Suspension	2
TSTG 220	Workplace Skills	3
TSTA/G/D - Restricted Electives		4
<b>Semester Credit Hours</b>		<b>16</b>

#### Spring Semester

TSTG 135	Starting and Charging Systems	2
TSTD 265	Diesel Engine Controls	3
TSTD 177	Air Systems Repair and Service	2
TSTA 286	Hybrid and Alternative Fueled Vehicles	2
TSTA/G/D - Restricted Electives		2
KINA 1xx	Activity	1
Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Total Semester Credit Hours</b>		<b>63</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Automotive Service Technician, Transportation Services (Technical Certificate)

Award: Technical Certificate

Program of Study: Transportation Services

Specialization: Automotive Service Technician

Program Code: 1312

## About This Program . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. 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 findings 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)
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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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

(40 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
CADT 101	Introduction to Computers	1
MATH 107	Career Math	3
<b>Total Semester Credit Hours</b>		<b>36</b>

### Restricted Electives

Code	Title	Semester Credit Hours
<b>Select four hours from the following list of Restricted Electives:</b>		<b>4</b>
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	Fluid Power	
TSTG 215	Engine Reconditioning	
TSTG 240	Job Shop	
TSTG 275	ABS Diagnostics	
<b>Total Semester Credit Hours</b>		<b>4</b>

## Suggested Course Plan

First Year	Semester	Semester Credit Hours
Fall Semester		
TSTC 100	Introduction to Transportation Services	2
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
MATH 107	Career Math	3
<b>Semester Credit Hours</b>		<b>13</b>
<b>Spring Semester</b>		
TSTC 101	Vehicle Service and Inspection	3
TSTC 130	Electrical I (first mod)	2
TSTC 160	Electrical II (second mod)	2
TSTG 135	Starting and Charging Systems	2
TSTG 195	Climate Control	4
CADT 101	Introduction to Computers	1
<b>Semester Credit Hours</b>		<b>14</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
TSTG 220	Workplace Skills	3
TSTA 265	Engine Control Services	3
TSTA 275	Alignment and Suspension Service	3
Restricted Electives		4
<b>Semester Credit Hours</b>		<b>13</b>
<b>Total Semester Credit Hours</b>		<b>40</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Diesel Mechanics, Transportation Services (Technical Certificate)

Award: Technical Certificate

Program of Study: Transportation Services

Specialization: Diesel Mechanics

Program Code: 1347

## About This Program . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. 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. Perform diesel vehicle repair practices that meet or exceed industry standards as defined by (ASE) Automotive Service Excellence. (Applied Learning)
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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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

(34 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	2
TSTG 120	Industrial Safety Practices	2
TSTG 135	Starting and Charging Systems	2
TSTG 150	Fluid Power	3
TSTG 175	Brakes II	2
TSTG 195	Climate Control	4

MATH 107	Career Math	3
<b>Total Semester Credit Hours</b>		<b>29</b>

Code	Title	Semester Credit Hours
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### Restricted Electives

Select 5 semester hours of the following:		5
TSTD 177	Air Systems Repair and Service	
TSTD 265	Diesel Engine Controls	
TSTD 275	Heavy Duty Suspension	
TSTG 215	Engine Reconditioning	
TSTG 220	Workplace Skills	
TSTG 240	Job Shop	
TSTG 270	Practical Applications	
TSTA 265	Engine Control Services	
TSTA 267	Body Controls	
WELD 151	Introduction to Welding	
<b>Total Semester Credit Hours</b>		<b>5</b>

## Suggested Course Plan

### First Year

Fall Semester	Semester Credit Hours	
TSTC 100	Introduction to Transportation Services	2
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
MATH 107	Career Math	3
TSTA/G/D - Restricted Electives		3
<b>Semester Credit Hours</b>		<b>16</b>

### Spring Semester

TSTC 101	Vehicle Service and Inspection	3
TSTC 130	Electrical I (first mod)	2
TSTC 160	Electrical II (second mod)	2
TSTG 135	Starting and Charging Systems	2
TSTG 150	Fluid Power	3
TSTG 195	Climate Control	4
TSTA/G/D - Restricted Electives		2
<b>Semester Credit Hours</b>		<b>18</b>
<b>Total Semester Credit Hours</b>		<b>34</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## 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

### About This Program . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. 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 findings 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
TSTG 135	Starting and Charging Systems	2
<b>Total Semester Credit Hours</b>		<b>9</b>

## Suggested Course Plan

First Year

Fall Semester

		Semester Credit Hours
TSTC 101	Vehicle Service and Inspection	3
TSTC 100	Introduction to Transportation Services	2
<b>Semester Credit Hours</b>		<b>5</b>

Spring Semester

TSTC 130	Electrical I	2
TSTG 135	Starting and Charging Systems	2
<b>Semester Credit Hours</b>		<b>4</b>
<b>Total Semester Credit Hours</b>		<b>9</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student’s petition for graduation is denied, it will be her/his responsibility to consult the Registrar’s Office regarding next steps.

## 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

## About This Program . . .

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 WCCC’s [Programs of Study](#) page.

All CMU/WCCC 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. 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 findings 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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 160	Electrical II	2
TSTC 170	Chassis Fundamentals	2
TSTC 171	Brakes I	2
TSTG 175	Brakes II	2
<b>Total Semester Credit Hours</b>		<b>8</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
TSTC 171	Brakes I	2
TSTC 160	Electrical II	2
<b>Semester Credit Hours</b>		<b>4</b>
Spring Semester		
TSTG 175	Brakes II	2
TSTC 170	Chassis Fundamentals	2
<b>Semester Credit Hours</b>		<b>4</b>
<b>Total Semester Credit Hours</b>		<b>8</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Light Duty Automotive Technician, Transportation Services (Technical Certificate)

Award: Technical Certificate

Program of Study: Transportation Services

Specialization: Light Duty Automotive Technician

Program Code: 1106

### About This Program . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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

(29 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
CADT 101	Introduction to Computers	1
MATH 107	Career Math	3
<b>Total Semester Credit Hours</b>		<b>25</b>

Code	Title	Semester Credit Hours
<b>Restricted Electives</b>		
Select a minimum of 4 semester hours from the following:		4
TSTG 135	Starting and Charging Systems	
TSTG 215	Engine Reconditioning	
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	
<b>Total Semester Credit Hours</b>		<b>4</b>

## Suggested Course Plan

### First Year

Fall Semester		Semester Credit Hours
TSTC 100	Introduction to Transportation Services	2
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
MATH 107	Career Math	3
<b>Semester Credit Hours</b>		<b>13</b>
Spring Semester		Semester Credit Hours
TSTC 101	Vehicle Service and Inspection	3
TSTC 130	Electrical I (first mod)	2
TSTC 160	Electrical II (second mod)	2
TSTG 195	Climate Control	4
CADT 101	Introduction to Computers	1
TSTG/A - Restricted Electives		4
<b>Semester Credit Hours</b>		<b>16</b>
<b>Total Semester Credit Hours</b>		<b>29</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Unmanned Aircraft Systems

This program prepares students to be a commercial Unmanned Aircraft Systems (UAS) pilot (a UAS pilot is sometimes referred to as a 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 operation and maintenance, preflight procedures, and sectional chart reading.

## Contact Information

Office of Student Services  
WCCC, Bishop B102  
2508 Blichmann Avenue

970.255.2670

## Programs of Study

Certificates

- [Pilot Small UAS, Unmanned Aircraft Systems \(Technical Certificate\)](#) (p. 714)

## Pilot Small UAS, Unmanned Aircraft Systems (Technical Certificate)

Award: Technical Certificate

Program of Study: Unmanned Aircraft Systems

Specialization: Pilot Small UAS

Program Code: 1139

### About This Program . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. 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. (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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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	3
UASP 120	UAS Pilot Operations and Applications	3
<b>Total Semester Credit Hours</b>		<b>9</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Fall Semester		
UASP 101	UAS Pilot Ground School	3
UASP 110	UAS Pilot License Preparation	3
UASP 120	UAS Pilot Operations and Applications	3
<b>Semester Credit Hours</b>		<b>9</b>
<b>Total Semester Credit Hours</b>		<b>9</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Veterinary Technology

### Program Description

This program prepares the student for employment as a Veterinary Technician. These professionals are an integral member 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, 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.

Successful completion of the program will lead to an Associate of Applied Science in veterinary technology and prepares students to take the Veterinary Technician National Examination for certification.

Students admitted to the Veterinary Technology program must undergo a background check, submit proof of immunizations, and obtain professional liability insurance.

## Veterinary Technician Program Accreditation

- Higher Learning Commission (HLC)
- Specialized Accreditation American Veterinary Medical Association Committee on Veterinary Technician Education and Activities (AVMA CVTEA)

Western Colorado Community College (WCCC) Veterinary Technology Program has achieved program approval through the Higher Learning Commission (HLC) and the AVMA CVTEA.

This is a competitive program; applications are due in the fall of each year for admission into the program in Spring. Pre-requisite classes can be completed in the fall prior to the intended admission to the program. A link to the application form and information about the interview process can be found here:

<https://www.coloradomesa.edu/wccc/programs/veterinary-technology.html>

## Contact Information

Office of Student Services  
WCCC, Bishop B102  
2508 Blichmann Avenue  
970.255.2670

## Programs of Study Associates

- [Veterinary Technology \(AAS\)](#) (p. 715)

## Veterinary Technology (AAS)

Degree: Associate of Applied Science  
Major: Veterinary Technology  
Program Code: 1306

## About This Major . . .

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 Career Services' [What to Do with a Major?](#) resource.

## Veterinary Technician Program Accreditation –

Higher Learning Commission (HLC) and Specialized Accreditation American Veterinary Medical Association Committee on Veterinary Technician Education and Activities (AVMA CVTEA)

Western Colorado Community College (WCCC) 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. WCCC is actively seeking this accreditation.

All CMU/WCCC 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>English</b>		
ENGL 111	English Composition I-GTC01	3
SPCH 101	Interpersonal Communications	3
<b>Mathematics</b>		
MATH 108	Technical Mathematics (or higher) <sup>1</sup>	4
<b>Other Essential Learning Core Courses</b>		
BIOL 105 & 105L	Attributes of Living Systems-GTSC1 and Attributes of Living Systems Laboratory-GTSC1	4
Select one Social and Behavioral Sciences, Natural Sciences, Fine Arts or Humanities course <sup>2</sup>		3
<b>Total Semester Credit Hours</b>		<b>17</b>

<sup>1</sup> 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
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
KINA 1XX	Activity Course	1
<b>Total Semester Credit Hours</b>		<b>2</b>

## 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
<b>Total Semester Credit Hours</b>		<b>63</b>

## 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	Semester	Credit Hours
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
KINA 1XX	Activity Course	1
KINE 100	Health and Wellness	1
MATH 108	Technical Mathematics (or higher) <sup>1</sup>	4

SPCH 101	Interpersonal Communications	3
<b>Semester Credit Hours</b>		<b>16</b>
<b>Spring Semester</b>		
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts, or Humanities Essential Learning course <sup>2</sup>		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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Summer Semester</b>		
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
<b>Semester Credit Hours</b>		<b>9</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
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
<b>Semester Credit Hours</b>		<b>18</b>
<b>Spring Semester</b>		
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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Summer Semester</b>		
VETT 243	Veterinary Diagnostic Microbiology	3
VETT 282	Clinical II	3
VETT 285	Veterinary Technician Exam Prep	1
<b>Semester Credit Hours</b>		<b>7</b>
<b>Total Semester Credit Hours</b>		<b>82</b>

<sup>1</sup> [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 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## 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

Office of Student Services  
WCCC, Bishop B102  
2508 Blichmann Avenue

970.255.2670

## Programs of Study Associates

- [Viticulture and Enology \(AAS\)](#) (p. 718)

## Certificates

- [Viticulture and Enology: Enology \(Technical Certificate\)](#) (p. 720)
- [Viticulture and Enology: Viticulture \(Technical Certificate\)](#) (p. 722)
- [Viticulture and Enology: Wine Appreciation \(Technical Certificate\)](#) (p. 723)
- [Viticulture and Enology: Wine Fermentation \(Technical Certificate\)](#) (p. 724)
- [Viticulture and Enology: Wine Professional \(Technical Certificate\)](#) (p. 725)

## Viticulture and Enology (AAS)

Degree: Associate of Applied Science

Major: Viticulture and Enology

Program Code: 1309

### About This Major . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Communication</b>		
ENGL 111	English Composition I-GTCO1	3
Select one of the following courses:		
ENGL 112	English Composition II-GTCO2	3
SPCH 101	Interpersonal Communications	
SPCH 102	Speechmaking	
<b>Mathematics</b>		
MATH 107	Career Math (or higher)	3
<b>Other Essential Learning Core Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>15</b>

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
Select one Activity course		1
<b>Total Semester Credit Hours</b>		<b>2</b>

## 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	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	3
VITE 101	Introduction to Wine	3
ENGL 111	English Composition I-GTCO1	3
MATH 107	Career Math	3
<b>Semester Credit Hours</b>		<b>16</b>

#### 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 Communications	
SPCH 102	Speechmaking	
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
<b>Semester Credit Hours</b>		<b>17</b>

### 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
<b>Semester Credit Hours</b>		<b>16</b>

#### 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
<b>Semester Credit Hours</b>		<b>16</b>
<b>Total Semester Credit Hours</b>		<b>65</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Viticulture and Enology: Enology (Technical Certificate)

Award: Technical Certificate

Program of Study: Viticulture and Enology

Specialization: Enology

Program Code: 1109

## About This Program . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Required Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>17</b>

## Suggested Course Plan

First Year		Semester Credit Hours
<b>Fall Semester</b>		
VITE 101	Introduction to Wine	3
<b>Semester Credit Hours</b>		<b>3</b>
<b>Spring Semester</b>		
VITE 210 & 210L	Fermentation Science and Fermentation Science Laboratory	4
<b>Semester Credit Hours</b>		<b>4</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
VITE 250	Advanced Winemaking I	4
<b>Semester Credit Hours</b>		<b>4</b>
<b>Spring Semester</b>		
VITE 260	Science of Winemaking	3
VITE 280	Advanced Winemaking II	3
<b>Semester Credit Hours</b>		<b>6</b>
<b>Total Semester Credit Hours</b>		<b>17</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Viticulture and Enology: Viticulture (Technical Certificate)

Award: Technical Certificate  
 Program of Study: Viticulture and Enology  
 Specialization: Viticulture  
 Program Code: 1107

### About This Program . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Required Courses</b>		
AGRS 100 & 100L	Practical Crop Production and Practical Crop Production Laboratory	4
AGRS 125	Agricultural Machinery	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
<b>Total Semester Credit Hours</b>		<b>14</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Viticulture and Enology: Wine Appreciation (Technical Certificate)

### Overview

Award: Technical Certificate  
 Program of Study: Viticulture and Enology  
 Specialization: Viticulture  
 Program Code: 1143

### About This Program . . .

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 [WCCC's Programs of Study page](#).

All CMU/WCCC 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. 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Total Semester Credit Hours</b>		<b>8</b>

## Suggested Course Plan

### First Year

#### Fall Semester

		Semester Credit Hours
VITE 101	Introduction to Wine	3
VITE 265	Wines of the World	2
<b>Semester Credit Hours</b>		<b>5</b>

#### Spring Semester

VITE 270	Sensory Analysis of Wine	3
<b>Semester Credit Hours</b>		<b>3</b>
<b>Total Semester Credit Hours</b>		<b>8</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

# Viticulture and Enology: Wine Fermentation (Technical Certificate)

## Overview

Award: Technical Certificate  
Program of Study: Viticulture and Enology  
Specialization: Viticulture  
Program Code: 1149

## About This Program . . .

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 [WCCC's Programs of Study page](#).

All CMU/WCCC 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. 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Total Semester Credit Hours</b>		<b>14</b>

## Suggested Course Plan

First Year		Semester Credit Hours
Spring Semester		
VITE 101	Introduction to Wine	3
VITE 210 & 210L	Fermentation Science and Fermentation Science Laboratory	4
<b>Semester Credit Hours</b>		<b>7</b>
Second Year		Semester Credit Hours
Fall Semester		
VITE 250	Advanced Winemaking I	4
<b>Semester Credit Hours</b>		<b>4</b>

### Spring Semester

VITE 280	Advanced Winemaking II	3
<b>Semester Credit Hours</b>		<b>3</b>
<b>Total Semester Credit Hours</b>		<b>14</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Viticulture and Enology: Wine Professional (Technical Certificate)

Award: Technical Certificate  
 Program of Study: Viticulture and Enology  
 Specialization: Wine Professional  
 Program Code: 1108

## About This Program . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Required Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>12</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

# Water Quality Management

Not accepting new applicants for any Water Quality Management programs. Classes are open for existing students only.

## Program Description

The Water Quality Management program\* prepares students for entry-level employment as technicians in the water processing industry. Course and lab work provide students with knowledge of the regulatory expectations, the science involved in meeting regulatory expectations, the equipment used to process water, and the systems management skills necessary to enter and be successful in the water processing industry.

Water quality technicians work in teams to operate drinking water treatment systems and wastewater treatment systems. Students in program prepare to become qualified professionals who plan, test for quality, and operate complex equipment to acquire and deliver high quality drinking water or process wastewater for return to the environment.

## Program Strengths

- Provides students with an understanding of the science involved in meeting regulatory expectations
- Instruction on the equipment used to process water
- Curriculum emphasizes the necessary systems management skills
- Provide students necessary information to pass state examination for state license.

## Career Opportunities

- Occupational Health and Safety Specialist
- Water Treatment Plant Technician
- Wastewater Treatment Plant Technician
- Water Resource Specialist
- Laboratory Analyst
- Water Chemist

## Contact Information

Office of Student Services  
WCCC, Bishop B102  
2508 Blichmann Avenue  
970.255.2670

## Programs of Study

Not accepting new applicants for any Water Quality Management programs. Classes are open for existing students only.

## Associates

- [Water Quality Management \(AAS\)](#) (p. 727)

## Certificates

- [Introduction to Wastewater Treatment, Water Quality Management \(Technical Certificate\)](#) (p. 729)
- [Mathematics in Water Quality, Water Quality Management \(Technical Certificate\)](#) (p. 730)
- [Small Systems, Water Quality Management \(Technical Certificate\)](#) (p. 732)

- [Wastewater Collection and Treatment, Water Quality Management \(Technical Certificate\)](#) (p. 733)
- [Water Distribution and Collection Systems, Water Quality Management \(Technical Certificate\)](#) (p. 734)
- [Water Distribution and Treatment, Water Quality Management \(Technical Certificate\)](#) (p. 736)

## Water Quality Management (AAS)

Degree: Associate of Applied Science  
Major: Water Quality Management  
Program Code: 1365

## About This Major . . .

**This program is no longer accepting new students. Classes are open for existing students only.**

The Water Quality Management Program will prepare students for entry level employment as technicians in the water processing industry. Water quality technicians work in teams to operate drinking water treatment systems and wastewater treatment systems. The workers plan, test for quality, operate complex equipment to acquire and deliver high quality drinking water or process waste water for return to the environment.

This program will provide the student with an understanding of the regulatory expectations, the science involved in meeting regulatory expectations, the equipment used to process water, and the systems management skills necessary to be a successful employee in the water processing industry. The industries interested in hiring graduates of this program are the public drinking water utilities and the wastewater treatment systems.

For more information on what you can do with this major, visit WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. (Communication)
2. Apply Mathematical and applied physics concepts for industry to meet employment requirements (Quantitative Fluency)
3. Research, evaluate, synthesize and apply information/data relevant to business, sciences, and technical careers. (Critical Thinking)
4. Demonstrate knowledge of terminology, symbols, business practices, and principles and application of associated technical skills. (Specialized Knowledge)
5. Perform the necessary applied skill sets to fulfill the needs of entry level employment. (Applied Learning)
6. Demonstrate ethical, civic, and work place responsibility as part of 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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, Water Quality Management.
- A minimum of 16 semester hours taken at CMU in no fewer than two semesters.

## 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
<b>Communication</b>		
ENGL 111	English Composition I-GTCO1	3
Select one of the following:		3
ENGL 112	English Composition II-GTCO2	

SPCH 101	Interpersonal Communications	
SPCH 102	Speechmaking	
<b>Mathematics</b>		
MATH 108	Technical Mathematics (or higher)	3
<b>Other Essential Learning Core Courses</b>		
CHEM 121	Principles of Chemistry-GTSC1	4
CHEM 121L	Principles of Chemistry Laboratory-GTSC1	1
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
<b>Total Semester Credit Hours</b>		<b>17</b>

<sup>1</sup> MATH 108 is a 4 semester credit hour course; however, if a student completes a higher-level, Essential Learning eligible Mathematics course a 3 semester hours, that course would fulfill the Mathematics Essential Learning requirement.

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
KINA 1XX	Activity	1
<b>Total Semester Credit Hours</b>		<b>2</b>

## Program Specific Degree Requirements

(46 semester hours, must earn a grade of "C" or better in each course.)

Code	Title	Semester Credit Hours
WQMS 100	Introduction to Water Quality	3
WQMS 105	Specific Calculations for Water Quality Management	4
WQMS 106	Mechanical/Physical Treatment	3
WQMS 109	Water Distribution	3
WQMS 116	Conventional Surface Water Treatment	3
WQMS 118	Wastewater Collection Systems	3
WQMS 119	Basic Water Quality Analysis	4
WQMS 126	Safety and Security Systems	3
WQMS 127	Water Quality Utility Management	3
WQMS 150	Troubleshooting in Water Quality	3
WQMS 202	Small Water Systems Operation and Maintenance	3
WQMS 203	Water Quality Small Wastewater Systems	3
WQMS 212	Drinking Water Regulations	4
WQMS 216	Biological and Bacteriological Water Quality Analyses	4
<b>Total Semester Credit Hours</b>		<b>46</b>

## 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 65 semester credit hours, including satisfactory completion of all required courses, for satisfactory completion of degree.

First Year		Semester Credit Hours
Fall Semester		
ENGL 111	English Composition I-GTCO1	3
MATH 108	Technical Mathematics	4
WQMS 100	Introduction to Water Quality	3
WQMS 106	Mechanical/Physical Treatment	3
WQMS 109	Water Distribution	3
KINE 100	Health and Wellness	1
<b>Semester Credit Hours</b>		<b>17</b>
Spring Semester		
WQMS 118	Wastewater Collection Systems	3
WQMS 119	Basic Water Quality Analysis	4
WQMS 105	Specific Calculations for Water Quality Management	4
CHEM 121 & 121L	Principles of Chemistry-GTSC1 and Principles of Chemistry Laboratory-GTSC1	5
<b>Semester Credit Hours</b>		<b>16</b>
Second Year		
Fall Semester		
Select one of the following:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communications	
SPCH 102	Speechmaking	
WQMS 127	Water Quality Utility Management	3
WQMS 150	Troubleshooting in Water Quality	3
WQMS 202	Small Water Systems Operation and Maintenance	3
WQMS 203	Water Quality Small Wastewater Systems	3
KINA XXX	Activity	1
<b>Semester Credit Hours</b>		<b>16</b>
Spring Semester		
WQMS 116	Conventional Surface Water Treatment	3
WQMS 212	Drinking Water Regulations	4
WQMS 126	Safety and Security Systems	3
WQMS 216	Biological and Bacteriological Water Quality Analyses	4
Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
<b>Semester Credit Hours</b>		<b>17</b>
<b>Total Semester Credit Hours</b>		<b>66</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Introduction to Wastewater Treatment, Water Quality Management (Technical Certificate)

Award: Technical Certificate

Program of Study: Water Quality Management

Specialization: Introduction to Wastewater Treatment

Program Code: 1133

### About This Program . . .

**This program is no longer accepting new students. Classes are open for existing students only.**

Technical Certificate- Introduction to Wastewater Treatment program prepares students for entry-level employment as technicians in the water processing industry. Water quality technicians work in teams to operate drinking water treatment systems and wastewater treatment systems. The program provides an understanding of the regulatory expectations, the science involved in meeting regulatory expectations, the equipment used to process water and the systems management skills necessary to be a successful employee in the water processing industry. The program consists of three Technical Certifications and an Associates of Applied Science degree. The Wastewater Collection & Treatment technical certificate focuses on wastewater collection and treatment for bacterial, and harmful pollutants.

For more information on what you can do with this major, visit WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. Apply business communication using listening, verbal and written, and electronic forms that are needed for entry level employment. (Communication)

2. Apply mathematical and applied physics concepts for industry to meet employment requirements (Quantitative Fluency)
3. Research, evaluate, synthesize and apply information/data relevant to business, sciences, and technical careers. (Critical Thinking)
4. Demonstrate knowledge of terminology, symbols, business practices, and principles and application of associated technical skills. (Specialized Knowledge)
5. Perform the necessary applied skill sets to fulfill the needs of entry level employment. (Applied Learning)
6. Demonstrate ethical, civic, and work place responsibility as part of 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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 earn a grade of "C" or better in each course.)

Code	Title	Semester Credit Hours
<b>Core Courses</b>		
WQMS 100	Introduction to Water Quality	3
WQMS 125	Wastewater Certification Review for Class C & D	3
<b>Total Semester Credit Hours</b>		<b>6</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Mathematics in Water Quality, Water Quality Management (Technical Certificate)

Award: Technical Certificate

Program of Study: Water Quality Management  
Specialization: Mathematics in Water Quality  
Program Code: 1134

## About This Program . . .

### This program is no longer accepting new students. Classes are open for existing students only.

Technical Certificate- Mathematics in Water Quality program prepares students for entry-level employment as technicians in the water processing industry. Water quality technicians work in teams to operate drinking water treatment systems and wastewater treatment systems. The program provides an understanding of the regulatory expectations, the science involved in meeting regulatory expectations, the equipment used to process water and the systems management skills necessary to be a successful employee in the water processing industry. The program consists of eight Technical Certifications and an Associates of Applied Science degree. The Mathematics in Water Quality technical certificate focuses on math associated with Water Quality.

For more information on what you can do with this major, visit WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. Apply business communication using listening, verbal and written, and electronic forms that are needed for entry level employment. (Communication)
2. Apply mathematical and applied physics concepts for industry to meet employment requirements (Quantitative Fluency)
3. Research, evaluate, synthesize and apply information/data relevant to business, sciences, and technical careers. (Critical Thinking)
4. Demonstrate knowledge of terminology, symbols, business practices, and principles and application of associated technical skills. (Specialized Knowledge)
5. Perform the necessary applied skill sets to fulfill the needs of entry level employment. (Applied Learning)
6. Demonstrate ethical, civic, and work place responsibility as part of 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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 a grade of "C" or better in each course.)

Code	Title	Semester Credit Hours
<b>Core Courses</b>		
WQMS 105	Specific Calculations for Water Quality Management	4
WQMS 200	Hydraulics for Water Quality Management	4
<b>Total Semester Credit Hours</b>		<b>8</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Small Systems, Water Quality Management (Technical Certificate)

Award: Technical Certificate

Program of Study: Water Quality Management

Specialization: Small Systems

Program Code: 1135

### About This Program . . .

**This program is no longer accepting new students. Classes are open for existing students only.**

Technical Certificate- Small Systems in Water Quality Management program prepares students for entry-level employment as technicians in the water processing industry. Water quality technicians work in teams to operate drinking water treatment systems and wastewater treatment systems. The program provides an understanding of the regulatory expectations, the science involved in meeting regulatory expectations, the equipment used to process water and the systems management skills necessary to be a successful employee in the water processing industry. The program consists of three Technical Certifications and an Associates of Applied Science degree. The Small Systems technical certificate is recognized by the state and county as an important part of water and wastewater operations.

For more information on what you can do with this major, visit WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. Apply business communication using listening, verbal and written, and electronic forms that are needed for entry level employment. (Communication)
2. Apply mathematical and applied physics concepts for industry to meet employment requirements (Quantitative Fluency)
3. Research, evaluate, synthesize and apply information/data relevant to business, sciences, and technical careers. (Critical Thinking)
4. Demonstrate knowledge of terminology, symbols, business practices, and principles and application of associated technical skills. (Specialized Knowledge)
5. Perform the necessary applied skill sets to fulfill the needs of entry level employment. (Applied Learning)
6. Demonstrate ethical, civic, and work place responsibility as part of 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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 earn a grade of "C" or better in each course.)

Code	Title	Semester Credit Hours
<b>Core Courses</b>		
WQMS 105	Specific Calculations for Water Quality Management	4
WQMS 126	Safety and Security Systems	3
WQMS 127	Water Quality Utility Management	3
WQMS 202	Small Water Systems Operation and Maintenance	3
WQMS 203	Water Quality Small Wastewater Systems	3
<b>Total Semester Credit Hours</b>		<b>16</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Wastewater Collection and Treatment, Water Quality Management (Technical Certificate)

Award: Technical Certificate  
Program of Study: Water Quality Management  
Specialization: Wastewater Collection and Treatment  
Program Code: 1136

### About This Program . . .

**This program is no longer accepting new students. Classes are open for existing students only.**

Technical Certificate- Wastewater Collection & Treatment program prepares students for entry-level employment as technicians in the water processing industry. Water quality technicians work in teams to operate drinking water treatment systems and wastewater treatment systems. The program provides an understanding of the regulatory expectations, the science involved in meeting regulatory expectations, the equipment used to process water and the systems management skills necessary to be a successful employee in the water processing industry. The program consists of three Technical Certifications and an Associates of Applied Science degree. The Wastewater Collection & Treatment technical certificate focuses on wastewater collection and treatment for bacterial, and harmful pollutants.

For more information on what you can do with this major, visit WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. Apply business communication using listening, verbal and written, and electronic forms that are needed for entry level employment. (Communication)
2. Apply mathematical and applied physics concepts for industry to meet employment requirements (Quantitative Fluency)
3. Research, evaluate, synthesize and apply information/data relevant to business, sciences, and technical careers. (Critical Thinking)
4. Demonstrate knowledge of terminology, symbols, business practices, and principles and application of associated technical skills. (Specialized Knowledge)
5. Perform the necessary applied skill sets to fulfill the needs of entry level employment. (Applied Learning)
6. Demonstrate ethical, civic, and work place responsibility as part of 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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 earn a grade of "C" or better in each course.)

Code	Title	Semester Credit Hours
<b>Core Courses</b>		
WQMS 105	Specific Calculations for Water Quality Management	4
WQMS 106	Mechanical/Physical Treatment	3
WQMS 118	Wastewater Collection Systems	3
WQMS 126	Safety and Security Systems	3
WQMS 127	Water Quality Utility Management	3
<b>Total Semester Credit Hours</b>		<b>16</b>

## Advising and Graduation Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Water Distribution and Collection Systems, Water Quality Management (Technical Certificate)

Award: Technical Certificate

Program of Study: Water Quality Management

Specialization: Water Distribution and Collection Systems

Program Code: 1137

## About This Program . . .

**This program is no longer accepting new students. Classes are open for existing students only.**

Technical Certificate- Water Distribution Collection Systems program prepares students for entry-level employment as technicians in the water processing industry. Water quality technicians work in teams to operate drinking water treatment systems and wastewater treatment systems. The program provides an understanding of the regulatory expectations, the science involved in meeting regulatory expectations, the equipment used to process water and the systems management skills necessary to be a successful employee in the water processing industry. The program consists of three Technical Certifications and an Associates of Applied Science degree. The Water Distribution and Collection systems certificate is designed to prepare students for employment at the technician level in water operations.

For more information on what you can do with this major, visit WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. Apply business communication using listening, verbal and written, and electronic forms that are needed for entry level employment. (Communication)
2. Apply mathematical and applied physics concepts for industry to meet employment requirements (Quantitative Fluency)
3. Research, evaluate, synthesize and apply information/data relevant to business, sciences, and technical careers. (Critical Thinking)
4. Demonstrate knowledge of terminology, symbols, business practices, and principles and application of associated technical skills. (Specialized Knowledge)
5. Perform the necessary applied skill sets to fulfill the needs of entry level employment. (Applied Learning)
6. Demonstrate ethical, civic, and work place responsibility as part of 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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 earn a grade of "C" or better in each course.)

Code	Title	Semester Credit Hours
<b>Core Courses</b>		
WQMS 109	Water Distribution	3
WQMS 118	Wastewater Collection Systems	3
<b>Total Semester Credit Hours</b>		<b>6</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Water Distribution and Treatment, Water Quality Management (Technical Certificate)

Award: Technical Certificate

Program of Study: Water Quality Management

Specialization: Water Distribution and Treatment

Program Code: 1138

### About This Program . . .

**This program is no longer accepting new students. Classes are open for existing students only.**

Technical Certificate- Water Distribution & Treatment program prepares students for entry-level employment as technicians in the water processing industry. Water quality technicians work in teams to operate drinking water treatment systems and wastewater treatment systems. The program provides an understanding of the regulatory expectations, the science involved in meeting regulatory expectations, the equipment used to process water and the systems management skills necessary to be a successful employee in the water processing industry. The program consists of three Technical Certifications and an Associates of Applied Science degree. The Water Distribution & Treatment certificate is designed to prepare students for employment at the technician level in water operations.

For more information on what you can do with this major, visit WCCC's [Programs of Study](#) page.

All CMU/WCCC 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. Apply business communication using listening, verbal and written, and electronic forms that are needed for entry level employment. (Communication)
2. Apply mathematical and applied physics concepts for industry to meet employment requirements (Quantitative Fluency)
3. Research, evaluate, synthesize and apply information/data relevant to business, sciences, and technical careers. (Critical Thinking)
4. Demonstrate knowledge of terminology, symbols, business practices, and principles and application of associated technical skills. (Specialized Knowledge)
5. Perform the necessary applied skill sets to fulfill the needs of entry level employment. (Applied Learning)
6. Demonstrate ethical, civic, and work place responsibility as part of 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 WCCC 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/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC 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 earn a grade of "C" or better in each course.)

Code	Title	Semester Credit Hours
<b>Core Courses</b>		
WQMS 105	Specific Calculations for Water Quality Management	4
WQMS 109	Water Distribution	3
WQMS 116	Conventional Surface Water Treatment	3
WQMS 126	Safety and Security Systems	3

WQMS 127	Water Quality Utility Management	3
<b>Total Semester Credit Hours</b>		<b>16</b>

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 her/his 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## Watershed Science

### Program Description

The Watershed Science minor is an interdisciplinary program designed to serve the regional need for scientists with a strong background in water-related issues. It is a useful complement to environmental, physical and biological science majors, providing students in these fields with focused coursework. Combined with the relevant bachelor of science degree, 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 and the drainages of the Colorado National Monument create an ideal location for the study of Watershed Science.

### Contact Information

Dr. Greg Baker

gbaker@coloradomesa.edu  
Department of Physical and Environmental Sciences  
Wubben Science 232  
970.248.1993

## Programs of Study Bachelors/Minors

- [Watershed Science \(Minor\)](#) (p. 414)

## Wildland Fire Management Program Description

The Associate of Applied Science (AAS) in Wildland Fire Management program 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 wildland fire fundamentals, leadership skills, fire behavior, 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-to-date industry expertise, and three credit internships are also available in the summer months with wildland fire agencies to enhance the student's field knowledge and practical experiences.

Students successfully completing the program 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.

### Contact Information

Office of Student Services  
WCCC, Bishop B102  
2508 Blichmann Avenue  
970.255.2670

## Programs of Study Associates

- [Wildland Fire Management \(AAS\)](#) (p. 738)

# Wildland Fire Management (AAS)

Degree: Associate of Applied Science  
Major: Wildland Fire Management  
Program Code: 1363

## About This Major . . .

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 WCCC's [Programs of Study](#) page.

All CMU/WCCC 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 WCCC 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/WCCC.

- 2.00 cumulative GPA or higher in all CMU/WCCC 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
<b>Communication</b>		
ENGL 111	English Composition I-GTCO1	3
Select one of the following:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communications	
SPCH 102	Speechmaking	
<b>Mathematics</b>		
MATH 108	Technical Mathematics (or higher) <sup>1</sup>	4
<b>Other Essential Learning Core Courses</b>		
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
<b>Total Semester Credit Hours</b>		<b>16</b>

<sup>1</sup> 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
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
KINA 127	Physical Conditioning	1
<b>Total Semester Credit Hours</b>		<b>2</b>

## Program Specific Degree Requirements

(44 semester hours, must earn a grade of "C" or better in each course.)

Code	Title	Semester Credit Hours
<b>Required Courses</b>		
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	4
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	2
FSWM 156	Firefighter Type 1 and Fire Line Leadership	2
EMTS 115	Emergency Medical Responder	3
<b>Total Semester Credit Hours</b>		<b>29</b>

Code	Title	Semester Credit Hours
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### Restricted Electives

Select 15 semester hours of the following:		15
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	

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	
EMTS 102	Emergency Medical Technician - Basic II	
FSWM 103	Expanded Dispatch Recorder	
FSWM 141	Introduction to Incident Information	
FSWM 143	Wildfire Chain Saws	
FSWM 148	Status/Check-In Recorder	
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 201	Principles of Management	
MANG 221	Supervisory Concepts and Practices (FSWM Engine Operator)	
<b>Total Semester Credit Hours</b>		<b>15</b>

## Suggested Course Plan

First Year		Semester Credit Hours
<b>Fall Semester</b>		
ENGL 111	English Composition I-GTCO1	3
ENVS 101	Introduction to Environmental Science-GTSC2	3
KINE 100	Health and Wellness	1
KINA 127	Physical Conditioning	1
MATH 108	Technical Mathematics (or higher)	4
Essential Learning Social and Behavioral Science, History, Natural Sciences, Fine Arts or Humanities course		3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Spring Semester</b>		
EMTS 115	Emergency Medical Responder	3
FSWM 100	Introduction to Wildland Fire Basic Fire Guard School	4
FSWM 142	Portable Pumps and Water Use	2
FSWM 147	Ignition Operations	2
FSWM 156	Firefighter Type 1 and Fire Line Leadership	2
GEOG 131	Introduction to Cartography	3
<b>Semester Credit Hours</b>		<b>16</b>
<b>Second Year</b>		
<b>Fall Semester</b>		
Select one of the following:		3
ENGL 112	English Composition II-GTCO2	
SPCH 101	Interpersonal Communications	
SPCH 102	Speechmaking	
GEOL 103	Weather and Climate-GTSC2	3
Essential Learning Social and Behavioral Science, History, Natural Sciences, Fine Arts or Humanities course		3

Restricted Electives	7	
<b>Semester Credit Hours</b>	<b>16</b>	
<b>Spring Semester</b>		
FSWM 144	Fire Operations in the Wildland/Urban Interface	2
FSWM 151	Basic Air Operations	1
FSWM 153	Intermediate Wildland Fire Behavior	2
FSWM 155	Initial Attack Incident Commander/Basic Incident Command System	2
FSWM - Restricted Electives	8	
<b>Semester Credit Hours</b>	<b>15</b>	
<b>Total Semester Credit Hours</b>	<b>62</b>	

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on 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 at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

## 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 and personal experiences and world views. Students will take coursework in disciplines such as Criminal Justice, History, Literature, Psychology, and Sociology with an

aim of developing an interdisciplinary understanding of issues related to women and gender in 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.

## Contact Information

Department of Social and Behavioral Sciences  
Lowell Heiny Hall 413  
970.248.1696

## Programs of Study

### Bachelors/Minors

- [Women's and Gender Studies \(Minor\)](#) (p. 740)

## Women's and Gender Studies (Minor)

Minor: Women's and Gender Studies  
Program Code: M705

## About This Minor. . .

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
Select two of the following:		6
ENGL 330	Women in World Thought and Literature	
SOCO 340	Sociology of Gender	
PSYC 335	Psychology of Women	
Select three additional courses of the following: <sup>1</sup>		9
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	
PSYC 335	Psychology of Women	
PSYC 411	Human Sexuality	
PSYP 410	Introduction to Marriage and Family Counseling	
SOCO 345	Sociology of Sexuality	
SOCO 351	21st Century Families	
SOCI 101	Introduction to Lesbian, Gay, Bisexual, and Transgender Studies	
CRMJ 330	Intimate Partner Violence	
CRMJ 375	Women and Crime	
POLS 373	Global Politics of Women and Gender	
Or special course offerings such as Topics and Major Authors courses with the approval of minor advisor and Department Head		
<b>Total Semester Credit Hours</b>		<b>15</b>

<sup>1</sup> 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 her/his 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 her/his 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 [archived catalogs page](#). **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 [archived catalogs](#).**

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## Programs by Campus

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. 93) with questions or for more information.

To view program requirements for a previous year, visit either the [archived program sheets page](#) or the [archived catalogs page](#). **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 archived catalogs.**

Each program page can be printed or saved. To do so:

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- 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.

## Main CMU Campus

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Additional information about each discipline listed below can be found through the [Areas of Study page](#) (p. 93).

To view program requirements for a previous year, visit either the [archived program sheets page](#) or the [archived catalogs page](#). **Requirements for years 2018-2019 and earlier can be accessed via the archived program sheets page.** **Requirement for years 2019-2020 can be accessed via 2019-2020 archived catalog.**

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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### Associates

- [Business Computer Information Systems, Liberal Arts \(AA\)](#) (p. 240)

### Certificates

- [Decision Support Systems \(Professional Certificate\)](#) (p. 242)

## Computer Science

### Associates

- [Computer Science, Liberal Arts \(AS\)](#) (p. 249)



## Bachelors/Minors

- [Computer Science \(BS\)](#) (p. 246)
- [Computer Science \(Minor\)](#) (p. 251)

## Certificates

- [Data Science \(Professional Certificate\)](#) (p. 252)
- [Web Application Development \(Professional Certificate\)](#) (p. 253)

## Construction Electrical

### Associates

- [Construction Electrical \(AAS\)](#) (p. 256)

### Certificates

- [Construction Electrical \(Technical Certificate\)](#) (p. 258)

## Construction Management

### Bachelors/Minors

- [Bachelor of Science Construction Management + Master of Business Administration \(3+2\)](#) (p. 260)
- [Construction Management \(BS\)](#) (p. 260)

## Construction Technology

### Associates

- [Supervision, Construction Technology \(AAS\)](#) (p. 263)

## Criminal Justice

### Associates

- [Criminal Justice \(AAS\)](#) (p. 273)

### Bachelors/Minors

- [Criminal Justice \(BA\)](#) (p. 266)
- [Criminal Justice \(Minor\)](#) (p. 275)
- [Forensic Investigation - Criminal Justice \(Minor\)](#) (p. 276)
- [POST Academy, Criminal Justice \(BAS\)](#) (p. 269)

### Graduate

- [Criminal Justice Leadership and Policy \(MA\)](#) (p. 277)

## Culinary Arts

See also [Baking and Pastry](#) (p. 154).

### Associates

- [Culinary Arts \(AAS\)](#) (p. 279)

### Certificates

- [Food Preparation \(Technical Certificate\)](#) (p. 281)

## Cyber Security

### Bachelors/Minors

- [Cybersecurity \(Minor\)](#) (p. 284)

## Certificates

- [Cyber Security \(Professional Certificate\)](#) (p. 283)

## Dance

### Bachelors/Minors

- [Dance \(BFA\)](#) (p. 285)
- [Dance \(Minor\)](#) (p. 288)

## Decision Support

(See [Computer Information Systems](#) (p. 234))

## Digital Filmmaking

### Associates

- [Digital Filmmaking, Production Design \(AAS\)](#) (p. 295)
- [Digital Filmmaking, Writing/Directing \(AAS\)](#) (p. 298)

### Certificates <sup>1</sup>

- [Digital Filmmaking, Basic Production Design \(Technical Certificate\)](#) (p. 290)
- [Digital Filmmaking, Basic Writing/Directing \(Technical Certificate\)](#) (p. 291)
- [Digital Filmmaking, Intermediate Production Design \(Technical Certificate\)](#) (p. 292)
- [Digital Filmmaking, Intermediate Writing/Directing \(Technical Certificate\)](#) (p. 294)
- [Digital Filmmaking, Production Design Elements \(Technical Certificate\)](#) (p. 297)
- [Digital Filmmaking, Writing/Directing Elements \(Technical Certificate\)](#) (p. 300)

<sup>1</sup> Certificates progress in the following order: Elements, Basic, Intermediate.

## Economics

(See [Business](#) (p. 175))

## Education: Early Childhood

### Associates

- [Education: Early Childhood Education \(AAS\)](#) (p. 314)
- [Education: Early Childhood Education, Liberal Arts \(AA\)](#) (p. 305)

### Bachelors/Minors

- [Education: Early Childhood Special Education, Early Childhood Education \(BA\)](#) (p. 302)

### Certificates

- [Education: Early Childhood Education Assistant Teacher \(Technical Certificate\)](#) (p. 309)
- [Education: Early Childhood Education Director \(Technical Certificate\)](#) (p. 308)
- [Education: Early Childhood Education Entry-Level Teacher \(Technical Certificate\)](#) (p. 311)
- [Education: Early Childhood Education Teacher \(Technical Certificate\)](#) (p. 313)

## Education: Teacher Licensure

### Graduate

- [Applied Mathematics \(Graduate Certificate\)](#) (p. 335)
- [Education: Applied Mathematics \(MAEd\)](#) (p. 317)
- [Education: Educational Leadership \(EDLD\) \(Graduate Certificate\)](#) (p. 336)
- [Education: Educational Leadership \(EDLD\) \(MAEd\)](#) (p. 319)
- [Education: Exceptional Learner/Special Education \(EDSE\) \(Graduate Certificate\)](#) (p. 338)
- [Education: Exceptional Learner/Special Education \(EDSE\) \(MAEd\)](#) (p. 320)
- [Education: Initial Teacher Licensure - Elementary \(Graduate Certificate\)](#) (p. 340)
- [Education: Initial Teacher Licensure - Elementary \(MAEd\)](#) (p. 322)
- [Education: Initial Teacher Licensure - Secondary \(Graduate Certificate\)](#) (p. 341)
- [Education: Initial Teacher Licensure - Secondary \(MAEd\)](#) (p. 324)
- [Education: Initial Teacher Licensure K-12 Physical Education \(Graduate Certificate\)](#) (p. 328)
- [Education: Initial Teacher Licensure K-12 Physical Education \(MAEd\)](#) (p. 326)
- [Education: Rhetoric and Literary Studies \(MAEd\)](#) (p. 331)
- [Education: Social Science \(MAEd\)](#) (p. 333)
- [Education: Teaching and Leadership \(EDTL\) \(MAEd\)](#) (p. 329)
- [Rhetoric and Literary Studies \(Graduate Certificate\)](#) (p. 343)
- [Social Science \(Graduate Certificate\)](#) (p. 344)

## Electric Lineworker

### Associates

- [Electric Lineworker \(AAS\)](#) (p. 347)

### Certificates

- [Electric Lineworker \(Technical Certificate\)](#) (p. 349)

## Electrical/Computer Engineering

### Bachelors/Minors

See information provided in [Electrical/Computer Engineering](#) (p. 346) for CMU/CU-Boulder BS ECE partnership program.

- [Electrical/Computer Engineering, CMU/CU-Boulder Partnership Program \(BS ECEE\)](#) (p. 346)

## Emergency Management and Disaster Planning

### Certificates

- [Emergency Management and Disaster Planning \(Professional Certificate\)](#) (p. 351)

## Emergency Medical Services

### Associates

- [EMT - Paramedic \(AAS\)](#) (p. 352)

### Certificates

- [EMT - Basic \(Technical Certificate\)](#) (p. 355)
- [EMT - Paramedic \(Technical Certificate\)](#) (p. 356)

## Energy Management/Landman

### Bachelors/Minors

- [Energy Management/Landman, Business Administration \(BBA\)](#) (p. 188)

### Certificates

- [Energy Management/Landman \(Professional Certificate\)](#) (p. 358)

## Engineering

(See [Civil Engineering](#) (p. 232), [Electrical/Computer Engineering](#) (p. 346), [Mechanical Engineering](#) (p. 532), or [Mechanical Engineering Technology](#) (p. 532).)

## English

### Bachelors/Minors

- [Education: Secondary Education, English \(BA\)](#) (p. 360)
- [English \(BA\)](#) (p. 364)
- [English \(Minor\)](#) (p. 373)
- [Literature, English \(BA\)](#) (p. 367)
- [Writing, English \(BA\)](#) (p. 370)

### Certificates

- [Editing and Technical Communication \(Professional Certificate\)](#) (p. 374)

### Graduate

- [Rhetoric and Literary Studies \(Graduate Certificate\)](#) (p. 343)

## Environmental Science and Technology

### Bachelors/Minors

- [Environmental Science and Technology \(BS\)](#) (p. 376)
- [Environmental Science and Technology \(Minor\)](#) (p. 380)

### Certificates

- [Sustainability Practices \(Professional Certificate\)](#) (p. 381)

## Exercise Science

### Bachelors/Minors

- [Exercise Science \(BS\)](#) (p. 382)
- [Exercise Science \(Minor\)](#) (p. 385)

## Finance

(See [Business](#) (p. 175))

## Fire Science Technology

### Associates

- [Fire Science Technology \(AAS\)](#) (p. 388)

## Fitness and Health Promotion

### Bachelors

- [Fitness and Health Promotion \(BS\)](#) (p. 390)

## Forensic Anthropology

### Bachelors/Minors

- [Forensic Anthropology \(Minor\)](#) (p. 394)

## Forensic Investigation - Criminal Justice

(See [Criminal Justice](#) (p. 265))

## Forensic Investigation - Psychology

(See [Psychology](#) (p. 633))

## Forensic Science

### Bachelors/Minors

- [Forensic Science \(Minor\)](#) (p. 395)

## Geographic Information Science and Technology

### Bachelors/Minors

- [Geographic Information Science and Technology \(Minor\)](#) (p. 398)

### Certificates

- [Geographic Information Science and Technology \(Professional Certificate\)](#) (p. 396)

## Geosciences

### Associates

- [Geology, Liberal Arts \(AS\)](#) (p. 410)

### Bachelors/Minors

- [Education: Secondary Education, Geosciences \(BS\)](#) (p. 407)
- [Environmental Geology, Geosciences \(BS\)](#) (p. 400)
- [Geology \(Minor\)](#) (p. 412)
- [Geology, Geosciences \(BS\)](#) (p. 403)
- [Watershed Science \(Minor\)](#) (p. 414)

## Gerontology

### Associates

- [Gerontology Specialist \(AAS\)](#) (p. 418)

### Certificates

- [Behavioral and Cognitive Care, Gerontology \(Technical Certificate\)](#) (p. 415)
- [End of Life Care, Gerontology \(Technical Certificate\)](#) (p. 416)

## Graphic Design

### Bachelors/Minors

- [Graphic Design \(Minor\)](#) (p. 423)
- [Visual Design, Graphic Design \(BFA\)](#) (p. 420)

## Heating, Ventilation, and Air Conditioning

### Associate

- [Heating Ventilation and Air Conditioning Technician \(AAS\)](#) (p. 424)

### Certificates

- [HVAC: HVAC Fundamentals \(TCT\)](#) (p. 427)

## History

### Bachelors/Minors

- [Education: Secondary Education, History \(BA\)](#) (p. 431)
- [History \(BA\)](#) (p. 428)
- [History \(Minor\)](#) (p. 435)
- [Public History \(Minor\)](#) (p. 436)

## Hospitality Management

### Associates

- [Hospitality Management \(AAS\)](#) (p. 440)

### Bachelors/Minors

- [Hospitality Management \(BAS\)](#) (p. 437)
- [Hospitality Management \(Minor\)](#) (p. 442)
- [Hospitality Management, Business Administration \(BBA\)](#) (p. 197)

## Humanities

### Associates

- [Humanities, Liberal Arts \(AA\)](#) (p. 443)

## Information and Communication Technology

### Associates

- [Information and Communication Technology \(AAS\)](#) (p. 446)

### Certificates

- [Computer Repair, Information and Communication Technology \(Technical Certificate\)](#) (p. 448)
- [Healthcare Information Networking, Information and Communication Technology \(Technical Certificate\)](#) (p. 449)
- [Help Desk Technician, Information and Communication Technology \(Technical Certificate\)](#) (p. 451)
- [Network Technician, Information and Communication Technology \(Technical Certificate\)](#) (p. 452)

## Innovation

### Professional Certificate

- [Innovation \(PCT\)](#) (p. 454)

## International Studies

### Bachelors/Minors

- [International Studies \(Minor\)](#) (p. 455)

## Jazz Studies

(See [Music](#) (p. 549))

## Kinesiology

### Bachelors/Minors

- [Adapted Physical Education, Kinesiology \(BA\)](#) (p. 457)
- [Education: K-12 Education, Kinesiology \(BA\)](#) (p. 460)

### Certificates

- [Personal Training \(Professional Certificate\)](#) (p. 464)

## Land Surveying and Geomatics

### Associates

- [Land Surveying and Geomatics \(AAS\)](#) (p. 466)

### Certificates

- [Land Surveying and Geomatics \(Technical Certificate\)](#) (p. 468)

## Liberal Arts

### Associates

- [Biology, Liberal Arts \(AS\)](#) (p. 172)
- [Business Administration, Liberal Arts \(AA\)](#) (p. 215)
- [Business Computer Information Systems, Liberal Arts \(AA\)](#) (p. 240)
- [Computer Science, Liberal Arts \(AS\)](#) (p. 249)
- [Education: Early Childhood Education, Liberal Arts \(AA\)](#) (p. 305)
- [Geology, Liberal Arts \(AS\)](#) (p. 410)
- [Humanities, Liberal Arts \(AA\)](#) (p. 443)
- [Mathematics, Liberal Arts \(AS\)](#) (p. 527)
- [Physics, Liberal Arts \(AS\)](#) (p. 623)
- [Social Science, Liberal Arts \(AA\)](#) (p. 651)
- [Sport Management, Liberal Arts \(AS\)](#) (p. 673)
- [University Studies, Liberal Arts \(AA\)](#) (p. 486)

### Bachelors/Minors

- [Education: Elementary Education, English, Liberal Arts \(BA\)](#) (p. 471)
- [Education: Elementary Education, Mathematics, Liberal Arts \(BA\)](#) (p. 475)
- [Education: Elementary Education, Social Science, Liberal Arts \(BA\)](#) (p. 478)
- [General Studies, Liberal Arts \(BA\)](#) (p. 482)
- [Interdisciplinary Studies, Liberal Arts \(BAS\)](#) (p. 484)

## Manufacturing Technology

### Associates

- [Machining Technology, Manufacturing Technology \(AAS\)](#) (p. 489)
- [Welding Technology, Manufacturing Technology \(AAS\)](#) (p. 491)

## Certificates

- [Architectural Drafting, Manufacturing Technology \(Technical Certificate\)](#) (p. 493)
- [Basic Welder, Manufacturing Technology \(Technical Certificate\)](#) (p. 494)
- [Civil Drafting, Manufacturing Technology \(Technical Certificate\)](#) (p. 496)
- [CNC Machinist, Manufacturing Technology \(Technical Certificate\)](#) (p. 497)
- [Computer Aided Design/Computer Aided Manufacturing \(CAD/CAM\), Manufacturing Technology \(Technical Certificate\)](#) (p. 498)
- [Entry Level Machining, Manufacturing Technology \(Technical Certificate\)](#) (p. 499)
- [Machine and Manufacturing Trades, Manufacturing Technology \(Technical Certificate\)](#) (p. 500)
- [Manual Machinist, Manufacturing Technology \(Technical Certificate\)](#) (p. 502)
- [Mechanical Drafting, Manufacturing Technology \(Technical Certificate\)](#) (p. 503)
- [Welding Technology, Manufacturing Technology \(Technical Certificate\)](#) (p. 504)

## Mass Communication

### Bachelors/Minors

- [Mass Communication \(Minor\)](#) (p. 508)
- [Media Strategies and Applications, Mass Communication \(BA\)](#) (p. 509)

## Mathematics

### Associates

- [Mathematics, Liberal Arts \(AS\)](#) (p. 527)

### Bachelors/Minors

- [Actuarial Science, Mathematics \(BS\)](#) (p. 513)
- [Applied Mathematics, Mathematics \(BS\)](#) (p. 515)
- [Education: Secondary Education, Mathematics \(BS\)](#) (p. 521)
- [Mathematics \(BS\)](#) (p. 518)
- [Mathematics \(Minor\)](#) (p. 529)
- [Statistics \(Minor\)](#) (p. 530)
- [Statistics, Mathematics \(BS\)](#) (p. 524)

### Graduate

- [Applied Mathematics \(Graduate Certificate\)](#) (p. 316)

## Mechanical Engineering

### Bachelors/Minors

- [Mechanical Engineering, CMU/CU-Boulder Partnership Program \(BSME\)](#) (p. 532)

## Mechanical Engineering Technology

### Associates

- [Mechanical Engineering Technology \(AAS\)](#) (p. 532)

## Bachelors

- [Mechanical Engineering Technology \(BS\)](#) (p. 534)

## Mechatronics

### Associates

- [Mechatronics \(AAS\)](#) (p. 538)

### Certificates

- [Mechatronics: Automation and Instrumentation \(Technical Certificate\)](#) (p. 540)
- [Mechatronics: Electronics Technician \(Technical Certificate\)](#) (p. 541)

## Medical Laboratory Technician

### Associates

- [Medical Laboratory Technician \(AAS\)](#) (p. 543)

## Medical Office Assistant

### Associates

- [Medical Office Assistant \(AAS\)](#) (p. 546)

### Certificates

- [Medical Office Assistant \(Technical Certificate\)](#) (p. 548)

## Music

### Bachelors/Minors

- [Education: Music Education K-12 \(BME\)](#) (p. 553)
- [Music Performance: Instrumental \(BM\)](#) (p. 559)
- [Music Performance: Keyboard \(BM\)](#) (p. 562)
- [Music Performance: Vocal \(BM\)](#) (p. 565)
- [Music with Elective Studies in Business \(BM\)](#) (p. 568)
- [Music: Commercial Music \(BA\)](#) (p. 575)
- [Music: Instrumental \(Minor\)](#) (p. 573)
- [Music: Jazz Studies \(Minor\)](#) (p. 572)
- [Music: Liberal Arts \(BA\)](#) (p. 550)
- [Music: Vocal \(Minor\)](#) (p. 574)

## Nurse Aide

### Certificates

- [Nurse Aide \(Technical Certificate\)](#) (p. 579)

## Nursing

### Associates

- [Nursing \(AAS\)](#) (p. 581)

### Bachelors/Minors

- [LPN to BSN, Nursing \(BSN\)](#) (p. 592)
- [Nursing \(BSN\)](#) (p. 594)
- [RN to BSN, Nursing \(BSN\)](#) (p. 597)

### Certificates

- [Practical Nursing \(Technical Certificate\)](#) (p. 600)

## Graduate

- [Adult-Gerontology Nurse Practitioner \(MSN\)](#) (p. 586)
- [Doctor of Nursing Practice - Family Nurse Practitioner \(DNP-FNP\)](#) (p. 584)
- [Family Nurse Practitioner, Nursing \(MSN\)](#) (p. 588)
- [Nurse Educator, Nursing \(MSN\)](#) (p. 590)

## Occupational Therapy

### Graduate

- [Occupational Therapy \(MS\)](#) (p. 603)

## Outdoor Recreation Industry Studies

### Bachelors/Minors

- [Outdoor Recreation Industry Studies \(BS\)](#) (p. 605)
- [Outdoor Recreation Studies \(Minor\)](#) (p. 608)

## Paramedic

(See [Emergency Medical Services](#) (p. 352))

## Peace Officer Standards and Training (POST)

### Certificates

- [Peace Officer Academy - Peace Officer Standards and Training \(POST\) \(Technical Certificate\)](#) (p. 609)

## Personal Training

(See [Kinesiology](#) (p. 457))

## Pharmacy Technician

### Associates

- [Pharmacy Technician \(AAS\)](#) (p. 612)

### Certificates

- [Entry-Level Pharmacy Technician \(Technical Certificate\)](#) (p. 611)

## Philosophy

### Minors

- [Philosophy \(Minor\)](#) (p. 615)

## Physical Therapy

### Graduate

- [Physical Therapy \(DPT\)](#) (p. 616)

## Physician Assistant

### Graduate

- [Physician Assistant \(MPAS\)](#) (p. 617)

## Physics

### Associates

- [Physics, Liberal Arts \(AS\)](#) (p. 623)

## Bachelors/Minors

- [Physics \(BS\)](#) (p. 620)
- [Physics \(Minor\)](#) (p. 625)

## Political Science

### Bachelors/Minors

- [Political Science \(BA\)](#) (p. 626)
- [Political Science \(Minor\)](#) (p. 630)

## Process Systems Technology

### Certificates

- [Control Systems Technician, Process Systems Technology \(Technical Certificate\)](#) (p. 631)
- [Electronics Technician, Process Systems Technology \(Technical Certificate\)](#) (p. 632)

## Psychology

### Bachelors/Minors

- [Counseling Psychology, Psychology \(BA\)](#) (p. 634)
- [Forensic Investigation - Psychology \(Minor\)](#) (p. 639)
- [Psychology \(BA\)](#) (p. 637)
- [Psychology \(Minor\)](#) (p. 640)

## Public History

(See [History](#) (p. 428))

## Radiologic Sciences

### Bachelors/Minors

- [Radiologic Sciences \(BAS\)](#) (p. 644)
- [Radiologic Sciences \(BSRS\)](#) (p. 646)

### Certificates

- [Computed Tomography \(Professional Certificate\)](#) (p. 642)
- [Magnetic Resonance Imaging \(Professional Certificate\)](#) (p. 643)

## Real Estate

### Certificates

- [Real Estate \(Professional Certificate\)](#) (p. 650)

## Social Science

### Associates

- [Social Science, Liberal Arts \(AA\)](#) (p. 651)

### Graduate

- [Social Science \(Graduate Certificate\)](#) (p. 344)

## Social Work

### Bachelors/Minors

- [Social Work \(BSW\)](#) (p. 654)
- [Social Work \(Minor\)](#) (p. 657)

## Graduate

- [Social Work: Advanced Standing \(MSW\)](#)
- [Social Work: Foundation \(MSW\)](#)

## Sociology

### Bachelors/Minors

- [Sociology \(BA\)](#) (p. 658)
- [Sociology \(Minor\)](#) (p. 661)

## Spanish

### Bachelors/Minors

- [Education: Secondary Education, Spanish \(BA\)](#) (p. 663)
- [Hispanic Studies, Spanish \(BA\)](#) (p. 666)
- [Spanish \(Minor\)](#) (p. 669)

## Sport Management

### Associates

- [Sports Management, Liberal Arts \(AS\)](#) (p. 673)

### Bachelors/Minors

- [Sport Management \(BS\)](#) (p. 670)
- [Sport Management \(Minor\)](#) (p. 675)

### Graduate

- [Sport Management \(MS\)](#) (p. 676)

## Statistics

(See [Mathematics](#) (p. 512))

## Studio Art

(See [Art](#) (p. 131))

## Supervision

(see [Business](#) (p. 175))

## Surgical Technology

### Associates

- [Surgical Technology \(AAS\)](#) (p. 678)

## Sustainability Practices

### Certificates

- [Sustainability Practices \(Professional Certificate\)](#) (p. 381)

## Sustainable Agriculture

### Associates

- [Sustainable Agriculture \(AAS\)](#) (p. 681)

## Teacher Education

(See [Art](#) (p. 131), [Early Childhood Education](#) (p. 302), [Education: Teacher Licensure](#) (p. 316), [English](#) (p. 359), [History](#) (p. 428), [Kinesiology](#) (p. 457), [Liberal Arts](#) (p. 470), [Mathematics](#) (p. 512), [Music](#) (p. 549), and [Social Science](#) (p. 651) for graduate and undergraduate programs)

## Theatre Arts

### Bachelors/Minors

- [Acting/Directing, Theatre Arts \(BFA\)](#) (p. 685)
- [Design/Technology, Theatre Arts \(BFA\)](#) (p. 692)
- [Music Theatre, Theatre Arts \(BFA\)](#) (p. 689)
- [Theatre \(Minor\)](#) (p. 699)
- [Theatre Arts, General \(BA\)](#) (p. 696)

## Transportation Services

### Associates

- [Advanced Automotive Service Technician, Transportation Services \(AAS\)](#) (p. 701)
- [Diesel Technology, Transportation Services \(AAS\)](#) (p. 703)

### Certificates

- [Automotive Service Technician, Transportation Services \(Technical Certificate\)](#) (p. 705)
- [Diesel Mechanics, Transportation Services \(Technical Certificate\)](#) (p. 707)
- [Light Duty Automotive Technician Foundations I, Transportation Services \(Technical Certificate\)](#) (p. 709)
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## Unmanned Aircraft Systems

### Certificates

- [Pilot Small UAS, Unmanned Aircraft Systems \(Technical Certificate\)](#) (p. 714)

## Veterinary Technology

### Associates

- [Veterinary Technology \(AAS\)](#) (p. 715)

## Viticulture and Enology

### Associates

- [Viticulture and Enology \(AAS\)](#) (p. 718)

### Certificates

- [Viticulture and Enology: Enology \(Technical Certificate\)](#) (p. 720)
- [Viticulture and Enology: Viticulture \(Technical Certificate\)](#) (p. 722)
- [Viticulture and Enology: Wine Appreciation \(Technical Certificate\)](#) (p. 723)

- [Viticulture and Enology: Wine Fermentation \(Technical Certificate\)](#) (p. 724)
- [Viticulture and Enology: Wine Professional \(Technical Certificate\)](#) (p. 725)

## Water Quality Management

### Associates

- [Water Quality Management \(AAS\)](#) (p. 727)

### Certificates

- [Introduction to Wastewater Treatment, Water Quality Management \(Technical Certificate\)](#) (p. 729)
- [Mathematics in Water Quality, Water Quality Management \(Technical Certificate\)](#) (p. 730)
- [Small Systems, Water Quality Management \(Technical Certificate\)](#) (p. 732)
- [Wastewater Collection and Treatment, Water Quality Management \(Technical Certificate\)](#) (p. 733)
- [Water Distribution and Collection Systems, Water Quality Management \(Technical Certificate\)](#) (p. 734)
- [Water Distribution and Treatment, Water Quality Management \(Technical Certificate\)](#) (p. 736)

## Watershed Science

(See [Geosciences](#) (p. 399))

## Wildland Fire Management

### Associates

- [Wildland Fire Management \(AAS\)](#) (p. 738)

## Women's and Gender Studies

### Bachelors/Minors

- [Women's and Gender Studies \(Minor\)](#) (p. 740)

# 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 in parentheses 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. 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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## B

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## C

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## E

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## Accounting (ACCT)

### ACCT 201 Principles of Financial Accounting<sup>3</sup> Credits

A basic course that introduces the concepts of bookkeeping, generally accepted accounting principles, and financial statements.

**Terms Typically Offered:** Fall, Spring, Summer.

### ACCT 202 Principles of Managerial Accounting<sup>3</sup> Credits

A basic course that introduces the use of accounting information in managerial decision making, control, and planning.

**Prerequisites:** ACCT 201.

**ACCT 311 Advanced Managerial Accounting3 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 I5 Credits**

Development of a foundational understanding of Generally Accepted Accounting Principles and their application to external financial statements.

**Prerequisites:** ACCT 201.

**ACCT 322 Intermediate Accounting II4 Credits**

Continuation of ACCT 321.

**Prerequisites:** ACCT 321.

**ACCT 331 Cost Accounting3 Credits**

Costs and their relationship to planning, controlling, inventory valuation, and decision making.

**Prerequisites:** ACCT 202.

**ACCT 350 Ethics for Accounting Professionals3 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 I1 Credit**

Professional preparation of resumes and job interviewing skills through mock interviews performed by community professionals using the media studio to videotape and critique the interviewee and review of the resume as it applies to the accounting industry.

**Prerequisites:** ACCT 201, ACCT 202, and ACCT 321.

**ACCT 392 Accounting Information Systems3 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 Education3-12 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 Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**ACCT 396 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**ACCT 399 Internship1-10 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**ACCT 401 Governmental Accounting3 Credits**

Accounting principles as they apply to governmental and non-profit units.

**Prerequisites:** ACCT 322.

**ACCT 402 Advanced Accounting3 Credits**

Consolidated financial statements, partnership accounting, bankruptcy, and international operations.

**Prerequisites:** ACCT 322.

**ACCT 411 Auditing I3 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; and CISB 241 or STAT 241.

**Terms Typically Offered:** Fall, Spring, Summer.

**ACCT 412 Auditing II3 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.

**ACCT 441 Individual Income Tax4 Credits**

Federal Income Tax Law in-depth as it relates to individual taxpayers. Introduction to various tax reference resources.

**Prerequisites:** ACCT 322, and senior standing.

**ACCT 442 Advanced Tax and Tax Research5 Credits**

Federal Income Tax Law for corporations, partnerships, estates, trusts, and gifts. In-depth experience with tax research resources, research methods and related projects. Required participation in the Tax Assistance Program to acquire practical experience in communication with taxpayers and preparation of tax returns.

**Prerequisites:** ACCT 441.

**ACCT 460 Professional Preparation III1 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 Accounting3 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 Accounting3 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 Legalities3 Credits**

Study of both civil and criminal systems, procedures, laws, as well as related areas that pertain to criminal financial activity and fraud.

**Prerequisites:** BUGB 349 or BUGB 351.

**Terms Typically Offered:** Fall, Spring, Summer.

**ACCT 475 Fraud Examination3 Credits**

Study of financial transactions and schemes, law, 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 349 or BUGB 351; ACCT 470; ACCT 471; and Senior Standing.

**Terms Typically Offered:** Fall, Spring, Summer.

**ACCT 493 Cooperative Education3-12 Credits**

See description of ACCT 393.

Course may be taken multiple times up to maximum of 15 credit hours.

**ACCT 495 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**ACCT 496 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**ACCT 499 Internship1-9 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**ACCT 500 Managerial Accounting3 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 Accounting3 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. Demonstration of mastery of material through graduate level projects, writing, and presentations.

**Prerequisites:** ACCT 201, ACCT 322, and permission of instructor.

## Addictions Counseling (ADAP)

**ADAP 301 Foundations of Addictions Counseling1 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 Treatment1 Credit**

Provides an overview of ethical, cultural, and legal considerations associated with the field of addictions.

**Prerequisites:** ADAP 301.

**ADAP 380 Pharmacology and Addictions1 Credit**

Provides an overview of pharmacology and infectious diseases associated with the field of addictions.

**Prerequisites:** ADAP 301.

**ADAP 401 Special Populations and Addictions1 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 Approaches1 Credit**

Outlines the different evidence-based treatment approaches in the addictions field.

**Prerequisites:** ADAP 301 and ADAP 350.

**ADAP 450 Addictions Assessment and Group Counseling1 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 Practice1 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.

**Terms Typically Offered:** Summer.

**ADAP 470 Addictions Clinical Supervision1 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.

**Terms Typically Offered:** Summer.

**ADAP 499 Internship1-3 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)

**AGRS 100 Practical Crop Production3 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.

**AGRS 100L Practical Crop Production Laboratory1 Credit**

Laboratory experiences supporting instruction in the 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.

**AGRS 102 Agriculture Economics3 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 103 Introduction to Entomology2 Credits**

Covers insect identification and classification, introduces integrated pest management concepts, and an in-depth study of selected insects of agricultural economic importance.

**Corequisites:** AGRS 103L.

**AGRS 103L Introduction to Entomology Laboratory1 Credit**

Lab component required for AGRS 103.

**Corequisites:** AGRS 103.

**AGRS 105 Animal Science3 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.

**AGRS 108 Composting3 Credits**

Exploration of the microbiology behind composting and procedures for various types of composting. Evaluation of the benefits of using compost in a variety of applications, including soil health and its roles in sustainable and regenerative agriculture. Covers potential hazards and regulations associated with making compost, industrial applications of composting, and employment possibilities in the composting field.

**Terms Typically Offered:** Fall.

**AGRS 110 Integrated Pest Management3 Credits**

Identification and control of economically important weeds, insects, and diseases through systems approach management concepts including cultivation, chemical, and biological control mechanisms.

**AGRS 118 Farm Structures and Green Houses3 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 Machinery3 Credits**

Emphasizes the safe operation, construction, purpose, maintenance, and adjustment of farm machinery.

**AGRS 131 Water and Irrigation: Principles and Practices2 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.

**AGRS 131L Water and Irrigation: Principles and Practices Laboratory1 Credit**

Applications in water, soil, and plant relationships; water quality assessment; principles of irrigation, methods, and systems.

**Prerequisites:** AGRS 100/AGRS 100L.

**Corequisites:** AGRS 131.

**AGRS 196 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**AGRS 205 Farm and Ranch Management3 Credits**

Provide students with practical experience in applying principles of economics, business, marketing, and finance to the management of a farm/ranch operation.

**AGRS 208 Agricultural Finance3 Credits**

Emphasizes 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.

**AGRS 210 Agricultural Marketing3 Credits**

Applied study of the agricultural marketing system. Methods of marketing crops and livestock. Emphasis on hedging with futures and options.

**AGRS 224 Integrated Ranch Management3 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 Feeding4 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.

**AGRS 230 Farm Animal Anatomy and Physiology3 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.

**AGRS 240 Introduction to Soil Science3 Credits**

Formation, physical properties, chemical properties, and management of soils emphasizing conditions affecting plant growth.

**Corequisites:** AGRS 240L.

**AGRS 240L Introduction to Soil Science Laboratory1 Credit**

Formation, physical properties, chemical properties, and management of soils emphasizing conditions affecting plant growth in the lab environment.

**Corequisites:** AGRS 240.

**AGRS 250 Live Animal and Carcass Evaluation1 Credit**

Explores 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.

**AGRS 250L Live Animal and Carcass Evaluation Laboratory2 Credits**

Lab component required for AGRS 250.

**Prerequisites:** AGRS 105.

**Corequisites:** AGRS 250.

**AGRS 260 Plant Propagation3 Credits**

Theory, biology, and practical applications of plant propagation technologies. Propagation by seed, cuttings, budding, grafting, layering, and tissue culture. Propagation environment, techniques of stock plant management, and seed handling.

**AGRS 265 Integrated Plant Health Management3 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 Practicum3 Credits**

Provides experiential learning with beef cattle, dairy cattle, swine, and sheep.

**AGRS 293 Cooperative Experience5 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.

Course may be taken multiple times up to maximum of 5 credit hours.

**AGRS 296 Topics:1-4 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

## Anthropology (ANTH)

**ANTH 196 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**ANTH 202 Introduction to Anthropology-GTSS33 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-GTSS33 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-GTSS33 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 Archaeology3 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-GTSS33 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-GTSS31 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 270 Death and Forensic Science2 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 Laboratory1 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.

**ANTH 296 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**ANTH 321 Paleoindian Archaeology3 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 Perspective3 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 Anthropology2 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 Laboratory1 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.

**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 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:** Fall.

**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)

**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.

**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 106 Marketing Your Image**1 Credit

Exploration of skills students can use to market themselves to prospective employers, clients, professional groups, and audiences of all types. Major emphasis will be placed on skills used to gain employment (resumes, interview, and professional appearance), and to achieve continued personal success (professional behavior and attitude). The course will include at least one simulated interview.

**ABUS 114 Digital Layout**3 Credits

Introduction to InDesign, a page layout program which integrates seamlessly with other Adobe design programs. InDesign delivers creative freedom and productivity to DTP. Class discussions and independent projects supplement hands-on classroom work.

**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.

**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.

**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.

**ABUS 145 Data Management3 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 Business3 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.

**ABUS 156 Problem Solving in the Business Environment3 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.

**ABUS 160 Introduction to Customer Service3 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.

**ABUS 165 Work Readiness1 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 Regulations3 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.

**ABUS 210 MicroBusiness Money Management3 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 I3 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.

**ABUS 258 Managing Office Technology II3 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.

**ABUS 289 Applied Business Capstone3 Credits**

Exploration of presentation techniques, regarding both verbal and nonverbal skills. Demonstrate presentation techniques using supporting knowledge gained from current academic program.

**ABUS 299 Internship1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

## Archaeology (ARKE)

**ARKE 395 Independent Study1-3 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 466 Field Research in Archeology6 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. Field trips to significant western Colorado sites will be taken.

**Prerequisites:** ANTH 420 and ANTH 420L.

**Terms Typically Offered:** Summer.

**ARKE 467 Archaeology Lab Methods3 Credits**

Introduction to techniques of laboratory cataloging, artifact analysis, and technical report writing. Photography, special sample preparation and other ancillary topics will also be discussed. Students must have completed ARKE 466 during the previous summer because they will be working with artifacts and other materials recovered during that course.

**Prerequisites:** ARKE 466.

**Corequisites:** ARKE 467L.

**ARKE 467L Archaeology Laboratory1 Credit**

Lab component for ARKE 467.

**Prerequisites:** ARKE 466.

**Corequisites:** ARKE 467.

**ARKE 496 Topics:1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**Fees:** Yes.

**ARKE 499 Internship1-12 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

## Art (ARTE)

**ARTE 101 Two-Dimensional Design-GTAH13 Credits**

Introduction to the design process using the elements and principles of art with an emphasis on composition, mark making, color theory, and craftsmanship. Two hours of lecture and two hours of studio per week.

**Essential Learning Categories:** Fine Arts

**Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum**

**ARTE 102 Three-Dimensional Design-GTAH13 Credits**

Introduction to principles of form and function in three-dimensional design with emphasis on materials, process, and craftsmanship.

**Essential Learning Categories:** Fine Arts

**Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum**

**Fees:** Yes.

**ARTE 103 Digital Art and Design-GTAH13 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 115 Art Appreciation-GTAH13 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-GTAH13 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**

**ARTE 119 History of Art, Renaissance to Present-GTAH13 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**

**ARTE 196 Topics:1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**ARTE 294 Sophomore Seminar3 Credits**

Development of intended personal direction for creative activity and scholarly work in upper division studio and art history courses. 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 career options in art.

**Prerequisites:** ARTH 220.

**ARTE 296 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**ARTE 395 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**ARTE 396 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**ARTE 494 Studio Art Senior Seminar3 Credits**

Examination of the current state of the studio arts and various career options through research, discussion, and practical application in the coordination of a required studio art exhibition. Includes development and presentation of a professional portfolio package including artist statement, resume, and web presence. Must enroll in the course during the spring semester in which the senior exhibition is presented. Each student must be working directly with a full time faculty member in their discipline to select work for their senior exhibition.

**Prerequisites:** ARTE 294 with grade of "B" or higher.

**Terms Typically Offered:** Spring.

**ARTE 495 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**ARTE 496 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**ARTE 498 Studio Assistant and Teaching Aid3 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 Internship3 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 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

## Art - Animation (ARTA)

**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. Individual and group projects.

**Terms Typically Offered:** Fall.

**ARTA 222 Principles of Digital Photography3 Credits**

Exploration of photographic principles through the use of the digital single lens reflex camera.

**Fees:** Yes.

**ARTA 223 Image and Motion3 Credits**

Introduction to tools, techniques, and practices relating to images and time-based media. Integration of images, typography, digital film, and sound.

**Fees:** Yes.

**ARTA 224 Principles of Film3 Credits**

Introduction to various stages of film production. Emphasis on screenwriting, planning and scheduling, cameras, lenses, lighting, and editing.

**Prerequisites:** ARTE 101 and ARTE 102.

**Terms Typically Offered:** Spring.

**ARTA 225 Principles of Animation3 Credits**

Introduction to the core principles of animation through animated exercises that explore various techniques and tools for creating the illusion of life.

**Terms Typically Offered:** Fall.



**ARTA 296 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**ARTA 322 Intermediate Photography3 Credits**

Discovery of vision and the art of seeing through the lens of a camera.

**Prerequisites:** ARTE 101 and ARTA 222.

**Fees:** Yes.

**ARTA 323 Character Design and Story Concepts3 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. Individual and collaborative projects.

**Prerequisites:** ARTA 223, ARTA 224, and ARTA 225.

**Terms Typically Offered:** Spring.

**ARTA 324 Animation Production3 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:** ARTA 224 and ARTA 225.

**Terms Typically Offered:** Fall.

**ARTA 325 3D Digital Modeling3 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 Filmmaking3 Credits**

Continuation of ARTA 224. Exploration of intermediate filmmaking techniques and aesthetics.

**Prerequisites:** ARTA 222, ARTA 223, ARTA 224, and ARTA 225.

**Terms Typically Offered:** Fall.

**ARTA 327 Sound Design and Post-Production3 Credits**

Exploration of the relationship between sound and image through post-production techniques including Editing, Coloring, and Sound Design. Create Foley sound effects for short films, podcasts, and video games.

**Prerequisites:** ARTA 322, ARTA 324, ARTA 325, and ARTA 326.

**Terms Typically Offered:** Spring.

**ARTA 396 Topics:1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**ARTA 421 Advanced Filmmaking3 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:** Fall, Spring.

**ARTA 422 Advanced Photography and Studio Lighting3 Credits**

Exploration of light and the development of a studio lighting portfolio.

**Prerequisites:** ARTE 101, ARTA 222, and ARTA 322.

**Fees:** Yes.

**ARTA 424 Animation, Film, and Photography Studio I3 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 322, ARTA 323, ARTA 324, and ARTA 326.

**Terms Typically Offered:** Fall.

**ARTA 425 Animation, Film, and Photography Studio II3 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.

**ARTA 426 Advanced Motion Studio3 Credits**

Development of emerging personal direction. Opportunities for unique, experimental, and personal projects working individually or in collaboration with other students.

**Prerequisites:** Upper division standing and permission of instructor. Course may be taken 2 times for credit.

**Fees:** Yes.

**ARTA 427 Portfolio and Demo Reel3 Credits**

Preparation of demo reel, resume, and promotional materials for entry into the professional job market.

**Prerequisites:** ARTA 424.

**Fees:** Yes.

**ARTA 496 Topics:1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**ARTA 499 Internship1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

## Art - Art Education (ARTD)

**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 Study1-3 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 Methods3 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 Methods1 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 Methods4 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 Study1-3 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)

**ARTH 196 Topics:1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**ARTH 220 History of Modern Art3 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, historical and cultural context.

**Prerequisites:** ARTE 101, ARTE 102, ARTE 118, and ARTE 119.

**Terms Typically Offered:** Fall, Spring.

**ARTH 296 Topics:1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**ARTH 315 Nineteenth-Century Art3 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.

**Prerequisites:** ARTE 118 and ARTE 119.

**ARTH 316 20th Century Art to 19503 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 History3 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 Art3 Credits**

Examination of art produced within the past 40 years with attention to the plurality of successful styles and subjects pursued by artists, the increasingly important role of the art critic and the contemporary art museum in interpreting trends, the impact of the commercial art market on the production and dissemination of contemporary art, and various experimental art forms developed by artists to counteract the influence of critics, institutions and commercial interests.

**Prerequisites:** ARTE 118 and ARTE 119.

**ARTH 319 Art of the American West3 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 Architecture3 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 and direct observation of the real world in art, and effects of the Protestant Reformation on artistic styles and content.

**Prerequisites:** ARTE 118 and ARTE 119.

**ARTH 322 Expressionism in 20th Century Art3 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 Architecture3 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 Design3 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 History3 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 Romanesque3 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 Architecture3 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 Image3 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 Study1-3 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 Criticism and Research: Theory and Method3 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. Completion of a fully researched term paper.

**Prerequisites:** ARTE 118 and ARTE 119, ARTH 315 or ARTH 316 or permission of instructor.

**ARTH 495 Independent Study1-3 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 Internship1-12 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

## Art - Graphic Design (ARTG)

**ARTG 122 Design I3 Credits**

Exploration of design as the foundation of all the visual arts. Approaching design through a broad hands-on tactile experience.

**Terms Typically Offered:** Fall, Spring.

**ARTG 196 Topics:1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**ARTG 201 Adobe Illustrator2 Credits**

Introduction. Techniques for using vector-based drawing program explored through exercises to learn the application and features as used by graphic designers for print and electronic media.

**ARTG 202 Adobe Photoshop2 Credits**

Introduction. Techniques for using raster-based software for print, video, web, and other multi-media applications.

**ARTG 203 Adobe InDesign2 Credits**

Techniques for using the program explored. Exercises to learn the application and features as used by graphic designers and professional publishers.

**ARTG 215 Graphic Design I3 Credits**

Basic use and operation of graphics computer, exclusively Macintosh, with focus on terminology, hardware, peripheral devices, system management, and software (systems and applications). Including establishment of operation files, job information files, information capture and placement, and maintenance.

**Fees:** Yes.

**ARTG 220 UX Design I3 Credits**

Application of modern techniques of WordPress web hosting, design, and real-world uses.

**Prerequisites:** ARTG 215.

**Corequisites:** ARTG 221 and ARTG 222.

**Terms Typically Offered:** Fall.

**ARTG 221 Graphic Design II3 Credits**

Principles of design and layout techniques, including thumbnail, rough, and comprehensive layouts: work planning and preparation of artwork with focus on computer and hand generated images.

**Prerequisites:** ARTE 101, ARTE 102, and ARTG 215.

**Corequisites:** ARTG 220 and ARTG 222.

**Terms Typically Offered:** Fall.

**Fees:** Yes.

**ARTG 222 Illustration I3 Credits**

Approaches to traditional and contemporary illustration. Materials will be introduced and developed for practical use.

**Prerequisites:** ARTG 215.

**Corequisites:** ARTG 220 and ARTG 221.

**Terms Typically Offered:** Fall.

**Fees:** Yes.

**ARTG 223 Commercial Typography and Sign Painting3 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 290 UX Design II3 Credits**

Development of websites with focus on the end user by applying tested UX design.

**Prerequisites:** ARTG 220.

**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 Illustration3 Credits**

Advanced creation of digital imagery focusing on visual content and composition in print and multi-media applications.

**Prerequisites:** ARTG 215, ARTG 221, and ARTG 222.

**Fees:** Yes.

**ARTG 320 Letterforms and Typography3 Credits**

Study of letterforms and typography including terminology, type style identification and design, use of type within a design, composition, copyfitting, and basic principles of pattern and spatial design.

**Prerequisites:** ARTG 215 and ARTG 221.

**Fees:** Yes.

**ARTG 321 Advanced Typography3 Credits**

Explore traditional and contemporary forms of typography and compositions through letterpress and hand rendering approaches.

**Prerequisites:** ARTG 320.

**Fees:** Yes.

**ARTG 333 Illustration II3 Credits**

Illustration techniques in context of contemporary materials and methods. Advanced use of materials.

**Prerequisites:** ARTG 221 and ARTG 222.

**Fees:** Yes.

**ARTG 337 Illustration III3 Credits**

Storytelling through traditional and contemporary illustration medium. Emphasis placed on developing concepts, execution, and professional practices.

**Prerequisites:** ARTG 333.

**Fees:** Yes.

**ARTG 338 Brand Design3 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 301 and ARTG 320.

**Terms Typically Offered:** Spring.

Course may be taken 3 times for credit.

**ARTG 360 Sketchbook3 Credits**

The sketchbook as a primary medium for developing creativity and the artist's thought processes. This course will include exploratory exercises and field assignments for developing skills in keeping an individual sketchbook as a place for recording ideas and the artist's visual experience.

**Prerequisites:** ARTS 151 and ARTG 222.

Course may be taken 2 times for credit.

**Fees:** Yes.

**ARTG 373 Screen Printing for Graphic Design3 Credits**

Introduce concepts and techniques of screen printing within Graphic Design and Illustration. Become familiar with industry tools, equipment and processes.

**Prerequisites:** ARTG 221.

Course may be taken 2 times for credit.

**Fees:** Yes.

**ARTG 395 Independent Study1-3 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 Painting3 Credits**

Introduction to the language of digital painting. Fundamental skills of proportion, perspective, and color mixing. Translating light and color into a digital space. Perceptual problem solving in the practical application of digital painting.

**Prerequisites:** ARTG 301.

**Fees:** Yes.

**ARTG 405 UX Design III3 Credits**

Creation and development of well-designed and functional web pages/sites to accommodate clients' promotional and business needs. Topics covered include software, creation of graphics, publishing, design theory for the web, typography, and promotion.

**Prerequisites:** ARTG 290, ARTG 301, and ARTG 320.

**Terms Typically Offered:** Spring.

**ARTG 406 UX Design IV3 Credits**

Investigation, analysis and application of User Experience, and emerging website design trends.

**Prerequisites:** ARTG 405.

**Terms Typically Offered:** Fall.

**ARTG 421 Contemporary Letterpress3 Credits**

Approaches to traditional and contemporary letterpress. Materials will be introduced and technique developed for practical use.

**Prerequisites:** ARTG 221.

Course may be taken 2 times for credit.

**Fees:** Yes.

**ARTG 427 Lab Assistant1-3 Credits**

Practice with technologies used within the Graphic Design labs. Maintain and use equipment.

**Prerequisites:** ARTG 221.

**Terms Typically Offered:** Fall.

Course may be taken 3 times for credit.

**ARTG 437 Illustration IV3 Credits**

Advanced illustration development focusing on concept, content, materials, and techniques. Emphasis on individual artistic style and personal visual communication perception.

**Prerequisites:** ARTG 337 or permission of instructor.

**Fees:** Yes.

**ARTG 450 Identity Design3 Credits**

Exploration of visual communication designed for public and private business and organization identity. Emphasis will be placed on the process of design and approaches to image generation for identity systems and standards.

**Prerequisites:** ARTG 301 and ARTG 320.

**ARTG 493 Portfolio Development3 Credits**

Development of portfolio materials to be used for gaining employment. Emphasis placed on current industry professional practices including presentation formats, resume development, contracts, and salary negotiations.

**Prerequisites:** ARTG 405 and ARTG 406.

Course may be taken multiple times up to maximum of 15 credit hours.

**Fees:** Yes.

**ARTG 495 Independent Study1-3 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 Internship1-3 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 450.

## Art - Sculpture/Studio (ARTT)

**ARTT 270 Sculpture I3 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.

**Fees:** Yes.

**ARTT 371 Sculpture/Construction I3 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.

**Fees:** Yes.

**ARTT 372 Sculpture/Construction II3 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.

**Fees:** Yes.

**ARTT 380 Bronze/Casting I3 Credits**

Bronze casting using the lost wax process and ceramic shell. Includes history, terminology, equipment, and procedure. Includes working in wax, spruing the art, ceramic shell investment, technical-pouring procedures, devesting the shelled patina. Studio emphasis on technique and creative process ending in finished bronze sculpture.

**Prerequisites:** ARTT 270.

**Fees:** Yes.

**ARTT 381 Bronze/Casting II3 Credits**

Creating in wax using various techniques. Explorations in wax using representational and abstract forms. Advanced finishes and patinas introduced.

**Prerequisites:** ARTT 380.

**Fees:** Yes.

**ARTT 471 Sculpture/Construction III3 Credits**

Sculpting 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.

**Fees:** Yes.

**ARTT 472 Sculpture/Construction IV3 Credits**

Thematic concepts for development of a BFA exhibit explored. Independent work via professor contract.

**Prerequisites:** ARTT 471.

**Fees:** Yes.

**ARTT 475 Sculpture Workshop I3 Credits**

Continued focus on a student's individual BFA direction. Independent work via student/professor contract.

**Prerequisites:** ARTT 472.

**Fees:** Yes.

**ARTT 476 Sculpture Workshop II3 Credits**

Emphasis placed on finishing sculpture representative of BFA direction. Sculpture focused and finished for professional presentation, independent work via student/professor contact.

**Prerequisites:** ARTT 475.

**Fees:** Yes.

**ARTT 480 Bronze/Casting III3 Credits**

Creating in wax using various techniques including advanced mold making. Focus on history and dynamics of furnace building and foundry equipment manufacture.

**Prerequisites:** ARTT 381.

**Fees:** Yes.

**ARTT 481 Bronze/Casting IV3 Credits**

Thematic concepts for development of a BFA exhibit explored. Independent work via professor contract.

**Prerequisites:** ARTT 480.

**Fees:** Yes.

**ARTT 483 Bronze Workshop I3 Credits**

Continued focus on a student's individual BFA direction. Independent work via student/professor contract.

**Prerequisites:** ARTT 481.

**Fees:** Yes.

**ARTT 484 Bronze Workshop III-3 Credits**

Emphasis placed on finishing sculpture representative of the student's BFA direction. Sculpture will be focused and finished for professional presentation. Independent work via student/professor contract.

**Prerequisites:** ARTT 483.

Course may be taken 2 times for credit.

**Fees:** Yes.

**ARTT 496 Topics:1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

## Art - Studio Art (ARTS)

**ARTS 151 Foundation Drawing I3 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.

**ARTS 152 Foundation Drawing II: Figure Drawing3 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.

**ARTS 196 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**ARTS 221 Metalsmithing3 Credits**

**Prerequisites:** ARTE 102 or permission of instructor.

**Fees:** Yes.

**ARTS 225 Introduction to Photography3 Credits**

Exploration of digital photography through technical and creative skill development using the digital single lens reflex camera.

**Terms Typically Offered:** Fall, Spring.

**ARTS 231 Fibers Workshop I3 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 Building3 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.

**Fees:** Yes.

**ARTS 242 Beginning Wheel Throwing3 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 taught. Development of under-glaze and glaze techniques.

**Fees:** Yes.

**ARTS 251 Life Drawing3 Credits**

Introduction to drawing the human figure. Issues of form, structure, volume, movement, composition, and expressive possibilities are explored and practiced.

**Prerequisites:** ARTE 101 and ARTS 152.

**Fees:** Yes.

**ARTS 252 Mixed Media Drawing3 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 matter for observational approach.

**Prerequisites:** ARTS 251.

**Fees:** Yes.

**ARTS 274 Printmaking: Intaglio and Relief3 Credits**

Introduces 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.

**Fees:** Yes.

**ARTS 275 Printmaking: Screen Printing and Lithography3 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.

**ARTS 291 Painting I: Intro to Painting3 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.

**Fees:** Yes.

**ARTS 296 Topics:1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**ARTS 321 Metalsmithing3 Credits**

**Prerequisites:** ARTS 151 and ARTS 221.

**Fees:** Yes.

**ARTS 325 Intermediate Photography3 Credits**

Development and discovery of individual artistic vision through the use of film photography.

**Prerequisites:** ARTE 101 and ARTS 225.

**Terms Typically Offered:** Fall, Spring.

**ARTS 331 Fibers Workshop I13 Credits**

Intermediate examination of several fiber or fabric applications.

**Prerequisites:** ARTS 231.

**ARTS 335 Digital Alternative Processes3 Credits**

Exploration of fine art print making using digital photographic processes that contains a hands on element through continuation of digital photography studies.

**Prerequisites:** ARTS 325.

**Terms Typically Offered:** Fall, Spring.

**ARTS 336 Photography Workshop I3 Credits**

Advanced development of personal vision and style through the lens of a camera.

**Prerequisites:** ARTS 335.

**Terms Typically Offered:** Fall, Spring.

**ARTS 342 Throwing Workshop I: Intermediate Throwing3 Credits**

A 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.

**Fees:** Yes.

**ARTS 344 Throwing Workshop I13 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.

**Fees:** Yes.

**ARTS 351 Drawing Workshop I3 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.

**Fees:** Yes.

**ARTS 352 Drawing Workshop I13 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.

**Fees:** Yes.

**ARTS 353 Visual/Conceptual Thinking3 Credits**

Learning meaningful questioning. Engaging 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 251.

**ARTS 354 Intermediate Life Drawing3 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 251.

Course may be taken 2 times for credit.

**Fees:** Yes.

**ARTS 362A Artists' Books1 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' Books1 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' Books1 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 I3 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. Individual and group critiques.

**Prerequisites:** ARTS 251 and ARTS 291.

**Fees:** Yes.

**ARTS 365 Painting II: Methods and Materials3 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.

**Fees:** Yes.

**ARTS 366 Painting 2: Observational Painting3 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 Lithography3 Credits**

Introduces advanced 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.

**Fees:** Yes.

**ARTS 371 Printmaking Workshop I3 Credits**

Develop skills with intaglio, relief, and lithograph. Exploration of advanced techniques. May include multiple color printing processes, engraving, and collagraph. Work created will be matted.

**Prerequisites:** ARTS 274 or ARTS 275.

**Fees:** Yes.

**ARTS 372 Printmaking Workshop II3 Credits**

Exploration of printmaking media. Investigation of a printmaker of choice to develop critical thinking about personal artistic skills. Artwork created will be matted, shown in a public space, and documented digitally.

**Prerequisites:** ARTS 371.

**Fees:** Yes.

**ARTS 375 Printmaking: Advanced Screen Printing3 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:** Fall.

**ARTS 376 Printmaking: Advanced Intaglio and Relief3 Credits**

Advanced intaglio and relief techniques, history, and concepts will be explored. 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.

**ARTS 384 Ceramic Sculpture Workshop I3 Credits**

Creating in clay using various techniques and processes. Explorations with clay includes 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.

**Fees:** Yes.

**ARTS 385 Summer Institute in Marble, Colorado3 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 I3 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 II3 Credits**

Thematic concepts for the development of a BFA exhibition in clay explored. Student / Mentor consultation 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.

**Fees:** Yes.

**ARTS 391 Painting Workshop I3 Credits**

Skills developed 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.

**Fees:** Yes.

**ARTS 392 Painting Workshop II3 Credits**

Further investigation of techniques and material in individual painting medium. Personal artistic influences identified tools to aid individual artistic direction. Individual and group critiques are ongoing. End of semester artwork presented in public space and documented digitally.

**Prerequisites:** ARTS 391.

**Fees:** Yes.

**ARTS 395 Independent Study1-3 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 421 Metalsmithing3 Credits**

**Prerequisites:** ARTS 321.

**Fees:** Yes.

**ARTS 425 Advanced Studio Photography3 Credits**

Further exploration of light and individual artistic vision through the use of digital photography.

**Prerequisites:** ARTS 325.

**Terms Typically Offered:** Fall, Spring.

**ARTS 431 Fibers Workshop III3 Credits**

Creating of advanced fiber and fabric artwork; examination of historical precedents.

**Prerequisites:** ARTS 331.

**Fees:** Yes.

**ARTS 435 Wet Alternative Processes3 Credits**

Exploration of fine art print making using wet alternative photographic processes that contains a hands on element.

**Prerequisites:** ARTS 335.

**Terms Typically Offered:** Fall, Spring.

**ARTS 436 Photography Workshop II3 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.

**ARTS 442 Kiln Construction3 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 III3 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.

**Fees:** Yes.

**ARTS 444 Throwing Workshop IV3 Credits**

Exploration of thematic concepts for the development of a BFA exhibit in clay continued. 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.

**Fees:** Yes.

**ARTS 451 Drawing Workshop III3 Credits**

Senior level drawing. Develop drawings used in senior exhibitions and professional purposes. Exploration and analysis of what historical and contemporary context fits individual's style.

**Prerequisites:** ARTS 352.

**Fees:** Yes.

**ARTS 452 Drawing Workshop IV3 Credits**

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.

**Fees:** Yes.

**ARTS 453 Visual and Conceptual Thinking3 Credits**

Advanced. Continuation of ARTS 353.

**Prerequisites:** ARTS 353.

**ARTS 464 Figure Painting II3 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 Painting3 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 Lithography3 Credits**

Continued development and refinement of techniques and concepts of fine art lithography including polyester plate 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 III3 Credits**

Research a printmaking technique that has not been introduced. Create a print and present the method. Develop a professional portfolio of artwork for senior exhibition and professional shows. Artwork created will be matted and documented digitally.

**Prerequisites:** ARTS 372.

**Fees:** Yes.

**ARTS 472 Printmaking Workshop IV3 Credits**

Technical refinement and conceptual development. Refining a personal direction for the artist's imagery. Artwork created will be matted and documented digitally.

**Prerequisites:** ARTS 471.

**Fees:** Yes.

**ARTS 473 Printmaking Workshop V3 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.

**Fees:** Yes.

**ARTS 474 Throwing Workshop V3 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.

**Fees:** Yes.

**ARTS 476 Printmaking: Portfolio Development1 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.

**ARTS 484 Ceramic Sculpture Workshop III3 Credits**

Thematic concepts for the development of a BFA exhibit in clay continued. Independent work via student/professor contract. Artwork based for professional presentation.

**Prerequisites:** ARTS 384.

**Fees:** Yes.



**ARTS 487 Bronze Commissions Workshop II3 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 IV3 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.

**Fees:** Yes.

**ARTS 491 Painting Workshop III3 Credits**

Workshop III continues 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.

**Fees:** Yes.

**ARTS 492 Painting Workshop IV1-3 Credits**

Technical refinement and conceptual development emphasized. Refinement of the artist's imagery. Ability to speak and write about work developed. End of semester artwork documented digitally.

**Prerequisites:** ARTS 491.

Course may be taken 2 times for credit.

**Fees:** Yes.

**ARTS 495 Independent Study1-3 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 498 Ceramic Sculpture Workshop V3 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

**Fees:** Yes.

**ARTS 499 Internship1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

## Athletic Training (ATRN)

**ATRN 502 Research Methods II3 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 511 Professionalism in Athletic Training/Healthcare Ethics I1 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 II3 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 Training3 Credits**

Exploration of Athletic Training administration. Concentration on human resources, healthcare delivery models, payor systems, facility design and function, and budgets.

**Prerequisites:** ATRN 511.

**Terms Typically Offered:** Fall.

**ATRN 521 Injury and Illness Diagnosis and Management I4 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 II4 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 Interventions1 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 Performance3 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 I2 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:** Admission to the MS Athletic Training program.

**Terms Typically Offered:** Fall.

**ATRN 532 Clinical Education in Athletic Training II2 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 531.

**Terms Typically Offered:** Spring.

**ATRN 533 Clinical Education in Athletic Training III3 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 IV3 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 587 Research3 Credits**

## Aviation Technology (AVTN)

**AVTN 101 Private Pilot Ground School4 Credits**

Preparation for Private Pilot Airplane, Single Engine, Land-FAA Knowledge Exam.

**Fees:** Yes.

**AVTN 102 Private Pilot Flight4 Credits**

Preparation in flight training for the Private Pilot Airplane, Single-Engine, Land FAA Practical Test, and completing requirements for the Private Pilot Certificate.

**Fees:** Yes.

**AVTN 105 Aviation Meteorology4 Credits**

Recognition, interpretation, and evaluation of atmospheric weather as it relates to and affects aviation.

**AVTN 111 Instrument Pilot Ground School4 Credits**

Preparation for the FAA Instrument Rating Knowledge Exam.

**Fees:** Yes.

**AVTN 112 Instrument Pilot Flight4 Credits**

Preparation in flight training for the Instrument Rating, Single Engine Airplane FAA Practical Test, and completing requirements for the Instrument Rating.

**Fees:** Yes.

**AVTN 140 Aircraft Systems4 Credits**

Introduction to the basic mechanical systems and structural components of aircraft to supplement instruction received in flight training.

**AVTN 196 Topics:1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**AVTN 201 Commercial Pilot Ground School2 Credits**

Preparation for the Commercial Pilot Airplane, Single Engine, Land FAA Knowledge Exam.

**Fees:** Yes.

**AVTN 202 Commercial Pilot Flight I4 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.

**Fees:** Yes.

**AVTN 203 Commercial Pilot Flight II3 Credits**

Preparation in flight training for the Commercial Pilot, Airplane Single Engine, Land FAA Practical Test, completing requirements for the Commercial Pilot Certificate.

**Fees:** Yes.

**AVTN 205 Mountain Flying Ground School1 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.

**Fees:** Yes.

**AVTN 206 Crew Resource Management1 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.

**AVTN 207 Multi-Engine Ground School1 Credit**

Preparation for the FAA Practical Test for Private or Commercial Pilot, Airplane Multi-Engine Land.

**Fees:** Yes.

**AVTN 208 Multi-Engine Flight1 Credit**

Preparation in flight training for the Airplane, Multi-Engine Rating and completing requirements for this rating.

**AVTN 211 Fundamentals of Instruction2 Credits**

Preparation for the FAA Fundamentals of Instructing Knowledge Exam.

**AVTN 212 Flight Instructor Ground School2 Credits**

Preparation for the FAA Flight Instructor Airplane Knowledge Exam.

**Fees:** Yes.

**AVTN 213 Flight Instructor Flight1 Credit**

Preparation of mastery in the areas of: 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.

**Fees:** Yes.

**AVTN 218 ATC Procedures4 Credits**

Preparation of IFR operations in the Air Traffic Control System, including: general procedures, terminal and IFR procedures, radar and non-radar environments, enroute procedures, and special and emergency procedures.

**AVTN 245 Aviation Safety2 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. NTSB accident reports will be thoroughly reviewed as they are published to determine causal factors.

**Terms Typically Offered:** Fall, Spring.

**AVTN 247 Aviation Physiology2 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:** Fall, Spring.

**AVTN 296 Topics:1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

## Biology (BIOL)

**BIOL 101 General Human Biology-GTSC13 Credits**

Scientific method, ecology, pollution, drugs, reproduction, cancer, heart disease, nutrition, and selected body structure and function relationships. Labs will include required field trips. Can be taken for graduation or essential learning credit by biology majors who have completed no more than 10 hours in BIOL.

**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**

**BIOL 101L General Human Biology Laboratory-GTSC11 Credit**

Lab component required for BIOL 101.

**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**

**Fees:** Yes.

**BIOL 105 Attributes of Living Systems-GTSC13 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**

**BIOL 105L Attributes of Living Systems Laboratory-GTSC11 Credit**

Lab component required for BIOL 105.

**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**

**Fees:** Yes.

**BIOL 106 Principles of Animal Biology3 Credits**

Broad morphological, physiological, and ecological features of principal phyla of animals and relationships between them.

**Prerequisites:** BIOL 105 or permission of instructor.

**Corequisites:** BIOL 106L.

**BIOL 106L Principles of Animal Biology Laboratory1 Credit**

Lab component required for BIOL 106.

**Prerequisites:** BIOL 105 or permission of instructor.

**Corequisites:** BIOL 106.

**Fees:** Yes.

**BIOL 107 Principles of Plant Biology3 Credits**

Reproductive biology, anatomy, physiology, phylogeny and ecology of the major groups of plants.

**Prerequisites:** BIOL 105 or permission of instructor.

**Corequisites:** BIOL 107L.

**BIOL 107L Principles of Plant Biology Laboratory1 Credit**

Lab component required for BIOL 107.

**Prerequisites:** BIOL 105 or permission of instructor.

**Corequisites:** BIOL 107.

**Fees:** Yes.

**BIOL 108 Diversity of Organisms-GTSC13 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**

**BIOL 108L Diversity of Organisms Laboratory-GTSC11 Credit**

Lab component required for BIOL 108.

**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**

**Fees:** Yes.

**BIOL 113 Outdoor Survival3 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 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**BIOL 208 Fundamentals of Ecology and Evolution3 Credits**

Introduction to current theory and experimental work on biology of populations, species interactions, community structure, organismal and molecular evolution, genetic structure of populations, and natural selection. Lab field trips and laboratory-based learning experiences in ecology and evolution.

**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.

**BIOL 208L Fundamentals of Ecology and Evolution Laboratory1 Credit**

Lab component required for BIOL 208.

**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.

**Fees:** Yes.

**BIOL 209 Human Anatomy and Physiology3 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. Three lectures and two one and one-half hour laboratories per week.

**Corequisites:** BIOL 209L.

**BIOL 209L Human Anatomy and Physiology Laboratory1 Credit**

Lab component required for BIOL 209.

**Corequisites:** BIOL 209.

**Fees:** Yes.

**BIOL 210 Human Anatomy and Physiology II3 Credits**

Continuation of Human Anatomy and Physiology, which covers additional body systems and disease processes. For students with an interest in pre-med, nursing, human health, and biology. Three one-hour lectures and two one and one-half hour laboratories per week.

**Prerequisites:** BIOL 209/BIOL 209L.

**Corequisites:** BIOL 210L.

**BIOL 210L Human Anatomy and Physiology II Laboratory1 Credit**

Lab component required for BIOL 210.

**Prerequisites:** BIOL 209/BIOL 209L.

**Corequisites:** BIOL 210.

**BIOL 211 Ecosystem Biology4 Credits**

Ecological studies utilizing the concepts of population biology: energetics, dynamics, distribution, and sociology. Overnight and/or weekend field trips may be required. Four lectures and one three-hour laboratory per week.

**Corequisites:** BIOL 211L.

**BIOL 211L Ecosystem Biology Laboratory1 Credit**

Lab component required for BIOL 211.

**Corequisites:** BIOL 211.

**Fees:** Yes.

**BIOL 217 Forensic Entomology2 Credits**

Basic procedure and considerations in using insect evidence in crime scene investigations and the determination of post mortem interval using insects. Two-hour lecture and one two-hour lab per week.

**Corequisites:** BIOL 217L.

**BIOL 217L Forensic Entomology Laboratory1 Credit**

Lab component required for BIOL 217.

**Corequisites:** BIOL 217.

**Fees:** Yes.

**BIOL 241 Pathophysiology4 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-GTSC13 Credits**

Major types of microorganisms with an emphasis on bacteria. Microbial taxonomy, structure, metabolism, genetics, and aspects of infectious disease and the immune host response. Three lecture hours and two two-hour laboratories per week.

**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**

**BIOL 250L Introduction to Microbiology Laboratory-GTSC11 Credit**

Lab component required for BIOL 250.

**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**

**Fees:** Yes.

**BIOL 296 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**BIOL 301 Principles of Genetics3 Credits**

Principles of genetics at the organismal, cellular, and molecular level dealing with the genetics of prokaryotic and eukaryotic organisms and viruses. Three lectures and one three-hour laboratory per week.

**Prerequisites:** BIOL 105/BIOL 105L and MATH 113.

**Corequisites:** BIOL 301L.

**BIOL 301L Principles of Genetics Laboratory1 Credit**

Lab component required for BIOL 301.

**Prerequisites:** BIOL 105/BIOL 105L and MATH 113; BIOL 302 recommended.

**Corequisites:** BIOL 301L.

**Fees:** Yes.

**BIOL 302 Cellular Biology3 Credits**

Form, function, and bioenergetics of the cell.

**Prerequisites:** BIOL 301/BIOL 301L and CHEM 132/CHEM 132L.

**BIOL 310 Developmental Biology3 Credits**

Embryonic growth and development of plants and animals. Errors in normal development, cancer, aging, and related topics.

**Prerequisites:** BIOL 301/BIOL 301L.

**Corequisites:** BIOL 310L.

**Terms Typically Offered:** Spring.

**BIOL 310L Developmental Biology Laboratory1 Credit**

Embryonic growth and development of plants and animals. Errors in normal development, cancer, aging, and related topics.

**Prerequisites:** BIOL 301/BIOL 301L.

**Corequisites:** BIOL 310.

**Terms Typically Offered:** Spring.

**BIOL 315 Epidemiology3 Credits**

Characteristic patterns of communicable disease occurrence as related to individuals, geographic location, and time; factors affecting disease occurrence, the nature of vital statistics, sampling procedures, and study design. An independent project is required.

**BIOL 316 Animal Behavior3 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 Laboratory1 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 Systematics3 Credits**

Systematic botany encompassing principles of classification, nomenclature, and evaluation of current classifications of angiosperms.

**Prerequisites:** BIOL 105/BIOL 105L, BIOL 107/BIOL 107L or BIOL 108/BIOL 108L, and BIOL 208/BIOL 208L.

**BIOL 321 Taxonomy of Grasses2 Credits**

A study of the grass family and grass-like plants (sedges and rushes) dealing with the evolution, classification, and identification of these plants. Two lectures and two two-hour laboratories per week.

**Prerequisites:** BIOL 107/BIOL 107L or BIOL 108/BIOL 108L, or permission of instructor.

**Corequisites:** BIOL 321L.

**BIOL 321L Taxonomy of Grasses Laboratory2 Credits**

Lab component required for BIOL 321.

**Prerequisites:** BIOL 107/BIOL 107L or BIOL 108/BIOL 108L, or permission of instructor.

**Corequisites:** BIOL 321.

**Fees:** Yes.

**BIOL 322 Plant Identification2 Credits**

Identification of the local flora. Basic plant anatomy and morphology. Includes evolutionary relationships of major plant groups as well as environmental, ecological, and historical constraints on plant distribution.

**Prerequisites:** BIOL 107/BIOL 107L or BIOL 108/BIOL 108L.

**Corequisites:** BIOL 322L.

**BIOL 322L Plant Identification Laboratory2 Credits**

Lab component required for BIOL 322.

**Prerequisites:** BIOL 107/BIOL 107L or BIOL 108/BIOL 108L.

**Corequisites:** BIOL 322.

**BIOL 331 Insect Biology3 Credits**

Insect taxonomy, evolution, ecology, and physiology. Insect collection required. Three lectures and two two-hour laboratories per week.

**Prerequisites:** BIOL 106/BIOL 106L or BIOL 108/BIOL 108L.

**Corequisites:** BIOL 331L.

**BIOL 331L Insect Biology Laboratory2 Credits**

Lab component required for BIOL 331.

**Prerequisites:** BIOL 106/BIOL 106L or BIOL 108/BIOL 108L.

**Corequisites:** BIOL 331.

**Fees:** Yes.

**BIOL 333 Marine Biology3 Credits**

Study of the principles that govern biological systems in the ocean with an emphasis on the natural history, ecology, and evolution of marine organisms. Three one-hour lectures per week.

**Prerequisites:** BIOL 106/BIOL 106L and BIOL 107/BIOL 107L, or BIOL 108/BIOL 108L, or permission of instructor.

**BIOL 335 Invertebrate Zoology3 Credits**

Study of the evolution, morphology, life history, ecology and classification of invertebrates with a focus on non-insect invertebrates. Three one-hour lectures and one two-hour lab per week.

**Prerequisites:** BIOL 106/BIOL 106L, or permission of instructor.

**Corequisites:** BIOL 335L.

**BIOL 335L Invertebrate Zoology Laboratory1 Credit**

Lab component required for BIOL 335.

**Prerequisites:** BIOL 106/BIOL 106L, or permission of instructor.

**Corequisites:** BIOL 335.

**Fees:** Yes.

**BIOL 336 Fish Biology3 Credits**

Study of the anatomy and physiology of fish. Topics include ecology, fish diseases, and marine and freshwater fishery techniques. Field trips may be offered.

**Prerequisites:** BIOL 106/BIOL 106L or permission of instructor.

**Corequisites:** BIOL 336L.

**BIOL 336L Fish Biology Laboratory1 Credit**

Lab component required for BIOL 336.

**Prerequisites:** BIOL 106/BIOL 106L or permission of instructor.

**Corequisites:** BIOL 336.

**Fees:** Yes.

**BIOL 338 Small Mammal Biology3 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, Summer.

**BIOL 343 Immunology3 Credits**

Immune system of animals with emphasis on human immune response. Includes the immune organs and both cellular and humoral responses. An independent research project is required.

**Prerequisites:** BIOL 302, or BIOL 301/BIOL 301L.

**BIOL 344 Forensic Molecular Biology3 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.

**BIOL 344L Forensic Molecular Biology Laboratory1 Credit**

Lab component required for BIOL 344.

**Prerequisites:** BIOL 105/BIOL 105L and CHEM 131/CHEM 131L.

**Corequisites:** BIOL 344.

**Fees:** Yes.

**BIOL 350 Microbiology3 Credits**

Growth, morphology, metabolism, genetics and ecology of microorganisms. Includes aspects of industrial microbiology, clinical microbiology, and genetic engineering. Three lectures and one three-hour laboratory per week.

**Prerequisites:** BIOL 105/BIOL 105L, and CHEM 121/CHEM 121L or CHEM 131/CHEM 131L.

**Corequisites:** BIOL 350L.

**BIOL 350L Microbiology Laboratory1 Credit**

Lab component required for BIOL 350.

**Prerequisites:** BIOL 105/BIOL 105L, and CHEM 121/CHEM 121L or CHEM 131/CHEM 131L.

**Corequisites:** BIOL 350.

**Fees:** Yes.

**BIOL 351 Ecological Physiology3 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 Laboratory1 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.

**BIOL 352 Human Physiology3 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 Laboratory1 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.

**BIOL 371L Laboratory Investigations in Cellular and Molecular Biology3 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. Two three-hour laboratories per week.

**Prerequisites:** BIOL 301/BIOL 301L and CHEM 132/CHEM 132L or permission of instructor.

**Fees:** Yes.

**BIOL 385 Nature and Philosophy of Science3 Credits**

Central concepts on the nature of scientific knowledge including philosophical tenets that distinguish science from technology as well as distinguish science from pseudoscience. May not be used in the Additional Biology Courses categories for the Biology Concentration.

**BIOL 387 Structured Research1-4 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 Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**BIOL 396 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**BIOL 403 Evolution3 Credits**

Organismal and molecular evolution emphasizing its importance as the unifying theory in biology. Evolution of natural selection on genetic structure of populations.

**Prerequisites:** BIOL 301/BIOL 301L, with BIOL 208/BIOL 208L strongly recommended.

**BIOL 405 Advanced Ecological Methods3 Credits**

Examination of quantitative methods in population, community, and ecosystems ecology. Extensive writing, computer work and field trips are required. Three lectures and two two-hour laboratories per week.

**Prerequisites:** BIOL 105/BIOL 105L; and BIOL 106/BIOL 106L and BIOL 107/BIOL 107L, or BIOL 108/BIOL 108L; STAT 301 is recommended.

**Corequisites:** BIOL 405L.

**BIOL 405L Advanced Ecological Methods Laboratory2 Credits**

Lab component required for BIOL 405.

**Prerequisites:** BIOL 105/BIOL 105L; and BIOL 106/BIOL 106L and BIOL 107/BIOL 107L, or BIOL 108/BIOL 108L; STAT 301 is recommended.

**Corequisites:** BIOL 405.

**Fees:** Yes.

**BIOL 406 Plant-Animal Interactions3 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; BIOL 331/BIOL 331L is recommended.

**BIOL 407 Tropical Field Biology3-5 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:** BIOL 105/BIOL 105L; and BIOL 106/BIOL 106L and BIOL 107/BIOL 107L, or BIOL 108/BIOL 108L; and BIOL 208/BIOL 208L; BIOL 331/BIOL 331L is recommended.

**BIOL 408 Desert Ecology3 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 or permission of instructor.

**BIOL 409 Gross and Developmental Human Anatomy2 Credits**

Gross anatomy, embryology, radiological and cross-sectional anatomy of the human body via lectures, demonstrations, and dissections of the human cadaver. Emphasis on thorax, abdomen, and extremities. Two lectures and two 2-hour laboratories per week.

**Prerequisites:** BIOL 209/BIOL 209L, or permission of instructor.

**Corequisites:** BIOL 409L.

**BIOL 409L Gross and Developmental Human Anatomy Laboratory2 Credits**

Lab component required for BIOL 409.

**Prerequisites:** BIOL 209/BIOL 209L, or permission of instructor.

**Corequisites:** BIOL 409.

**Fees:** Yes.

**BIOL 410 Human Osteology3 Credits**

Study of the human skeleton, including osteology and bone detail, biological variation, animal skeletal comparisons, pathology, forensics, and proper handling of human skeletal material. Laboratory emphasizes analysis and identification of human skeletal material. Three lectures and one two-hour laboratory per week.

**Prerequisites:** BIOL 209/BIOL 209L.

**Corequisites:** BIOL 410L.

**BIOL 410L Human Osteology Laboratory1 Credit**

Lab component required for BIOL 410.

**Prerequisites:** BIOL 209/BIOL 209L.

**Corequisites:** BIOL 410.

**Fees:** Yes.

**BIOL 411 Mammalogy3 Credits**

Classification, life histories, and ecology of mammals. Overnight and/or weekend field trips may be required. Two lectures and one two-hour laboratory or three-hour field trip per week.

**Prerequisites:** Upper division standing or permission of instructor.

**Corequisites:** BIOL 411L.

**BIOL 411L Mammalogy Laboratory1 Credit**

Lab component required for BIOL 411.

**Prerequisites:** Upper division standing or permission of instructor.

**Corequisites:** BIOL 411.

**Fees:** Yes.

**BIOL 412 Ornithology3 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 Laboratory1 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 Herpetology3 Credits**

Classification, evolution, morphology and ecology of amphibians and reptiles. Overnight or weekend field trips may be required. Three lectures and one two-hour laboratory per week.

**Prerequisites:** BIOL 208/BIOL 208L, and upper division standing or permission of instructor.

**Corequisites:** BIOL 413L.

**BIOL 413L Herpetology Laboratory1 Credit**

Lab component required for BIOL 413.

**Prerequisites:** BIOL 208/BIOL 208L, and upper division standing or permission of instructor.

**Corequisites:** BIOL 413.

**Fees:** Yes.

**BIOL 414 Freshwater Ecology3 Credits**

Classification, life history, and ecology of aquatic animals. Overnight and/or weekend field trips may be required. Three lectures and one two-hour laboratory or three-hour field trip per week.

**Prerequisites:** Upper division standing or permission of instructor.

**Corequisites:** BIOL 414L.

**BIOL 414L Freshwater Ecology Laboratory1 Credit**

Lab component required for BIOL 414.

**Prerequisites:** Upper division standing or permission of instructor.

**Corequisites:** BIOL 414.

**Fees:** Yes.

**BIOL 415 Tropical Ecosystems2 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, or permission of instructor.

**BIOL 418 Wildlife Management3 Credits**

Examination of wildlife biology and management. Topics covered include managing habitat, mammals, birds, fish, and other small animals. Three one-hour lectures per week.

**Prerequisites:** BIOL 105/BIOL 105L and BIOL 106/BIOL 106L or BIOL 107/BIOL 107L, and BIOL 208/BIOL 208L or permission of instructor.

**Corequisites:** BIOL 418L.

**BIOL 418L Wildlife Field Techniques2 Credits**

Lab component required for BIOL 418.

**Prerequisites:** BIOL 105/BIOL 105L and BIOL 106/BIOL 106L or BIOL 107/BIOL 107L, and BIOL 208/BIOL 208L or permission of instructor.

**Corequisites:** BIOL 418

**Fees:** Yes.

**BIOL 419 Fisheries Management3 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 Laboratory1 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 421 Plant Physiology3 Credits**

Plant-water relationships, plant mineral nutrition, photosynthesis, plant growth and development at the molecular and cellular level to account for plant growth at the organismal level. Three lectures and one two-hour laboratory per week.

**Prerequisites:** BIOL 107/BIOL 107L, CHEM 121/CHEM 121L or CHEM 131/CHEM 131L, or permission of instructor.

**Corequisites:** BIOL 421L.

**BIOL 421L Plant Physiology Laboratory1 Credit**

Lab component required for BIOL 421.

**Prerequisites:** BIOL 107/BIOL 107L, CHEM 121/CHEM 121L or CHEM 131/CHEM 131L, or permission of instructor.

**Corequisites:** BIOL 421.

**Fees:** Yes.

**BIOL 423 Plant Anatomy3 Credits**

Form, variability, and structure of the tissues comprising the body of the higher plant. Three lectures and two two-hour laboratories per week.

**Prerequisites:** BIOL 107/BIOL 107L or permission of instructor.

**Corequisites:** BIOL 423L.

**BIOL 423L Plant Anatomy Laboratory2 Credits**

Lab component required for BIOL 432.

**Prerequisites:** BIOL 107/BIOL 107L or permission of instructor.

**Corequisites:** BIOL 423.

**Fees:** Yes.

**BIOL 425 Molecular Genetics3 Credits**

Nature and expression of genetic information at the molecular level in prokaryotic and eukaryotic organisms.

**Prerequisites:** BIOL 301/BIOL 301L.

**BIOL 431 Animal Parasitology3 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. An independent research project is required. Three lectures and one two-hour laboratory per week.

**Corequisites:** BIOL 431L.

**BIOL 431L Animal Parasitology Laboratory1 Credit**

Lab component required for BIOL 431.

**Corequisites:** BIOL 431.

**Fees:** Yes.

**BIOL 433 Marine Invertebrate Communities3 Credits**

Techniques of collection and laboratory examination of marine invertebrates from intertidal and subtidal habitats. Seven eight-hour labs and seven two-hour lectures will be conducted at a marine biological research station.

**Prerequisites:** BIOL 106/BIOL 106L, or permission of instructor.

**BIOL 441 Endocrinology3 Credits**

Anatomy and physiology of the endocrine system of vertebrates.

**Prerequisites:** BIOL 105/BIOL 105L, CHEM 132/CHEM 132L, and junior or senior standing.

**BIOL 442 Pharmacology3 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.

**BIOL 450 Mycology3 Credits**

Fungi, with emphasis on comparative morphology and development, classification, physiology, genetics, and ecological relationships. Importance of fungi in industry, agriculture, and medicine. Three lectures and two two-hour laboratories per week.

**Prerequisites:** BIOL 107/BIOL 107L or permission of instructor.

**Corequisites:** BIOL 450L.

**BIOL 450L Mycology Laboratory2 Credits**

Lab component required for BIOL 450.

**Prerequisites:** BIOL 107/BIOL 107L or permission of instructor.

**Corequisites:** BIOL 450.

**Fees:** Yes.

**BIOL 482 Senior Research2 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 Thesis2 Credits**

Students prepare an in-depth thesis elaborating on a major conceptual issue(s) in biology. The purpose of the thesis is to ascertain the student's ability to collect a broad array of information and integrate this into a logical conceptual framework that traverses organizational levels of living systems. The thesis topic must be approved by the instructor.

**Prerequisites:** Senior standing and permission of instructor.

**BIOL 487 Advanced Research1-3 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 Practicum1 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 Seminar1 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 Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**BIOL 496 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**BIOL 499 Internship1-10 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 500 Advanced Human Anatomy3 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:** Graduate student status.

**Corequisites:** BIOL 500L.

**Terms Typically Offered:** Spring.

**BIOL 500L Advanced Human Anatomy Laboratory1 Credit**

Laboratory experience accompanying BIOL 500.

**Prerequisites:** Graduate student status.

**Corequisites:** BIOL 500.

**Terms Typically Offered:** Spring.

**BIOL 507 Tropical Field Biology5 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 Communities3 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 Topics1-5 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.



# Business (BUGB)

## **BUGB 101 Introduction to Business3 Credits**

American business system operations in the economy, business functions, and interrelations between the businessman and his environment.

**Prerequisites:** Can be taken for credit only by students who have completed fewer than 15 credit hours of BUGB, ACCT, HMG, MANG, MARK, OFAD, CISB, or FINA courses.

## **BUGB 101A Introduction to Business: Part 1 of 31 Credit**

Introduction to management, supervision, motivation, supervision and the processes of recruiting personnel in the workplace.

## **BUGB 101B Introduction to Business: Part 2 of 31 Credit**

Introduction to marketing, pricing, quality customer service, social responsibility and ethics in the workplace.

## **BUGB 101C Introduction to Business: Part 3 of 31 Credit**

Introduction to financial statements, financial management, and budgeting in the workplace.

## **BUGB 105 Freshman Business Seminar3 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 Mathematics3 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 211 Business Communications3 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 31 Credit**

Introduction to business communications, planning and writing messages and reports.

## **BUGB 211B Business Communications: Part 2 of 31 Credit**

Introduction to effective communications in business, including presentations and routine, negative and persuasive messages.

## **BUGB 211C Business Communications: Part 3 of 31 Credit**

Introduction to the roles of personal styles, cultures and teams in business communications.

## **BUGB 221 Insurance3 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 Law3 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. No credit allowed for degrees from Department of Business if credit already established in BUGB 351.

## **BUGB 249 Personal Finance: The Business of Life3 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 Education3-6 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 349 Legal Environment of Business3 Credits**

Legal framework of business including foundations of the American legal system, anti-trust law, property law, contracts and sales, negotiable instruments, agency relationships, torts, labor law, international business law and the social environment of business.

**Prerequisites:** Junior or senior standing or permission of instructor.

## **BUGB 351 Business Law I3 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 II3 Credits**

Business entities (formation, financing and regulation). Securities law and corporate governance, negotiable instruments; creditors' rights and bankruptcy; administrative, consumer and environmental law. Real and personal property; insurance; wills and trusts, and professional liability.

**Prerequisites:** BUGB 351 or permission of instructor.

## **BUGB 393 Cooperative Education3-9 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 Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

## **BUGB 396 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

## **BUGB 401 International Business3 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 Business3 Credits**

Application of the requisite business skill of critical thinking as it pertains to major issues in business.

**Prerequisites:** Senior standing.

## **BUGB 435 Emerging Markets3 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 Ethics3 Credits**

Examination of the nature and role of ethics in the business environment.

**BUGB 493 Cooperative Education3-12 Credits**

See description of BUGB 393.

Course may be taken multiple times up to maximum of 15 credit hours.

**BUGB 495 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**BUGB 496 Topics1-6 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**BUGB 500 Advanced Business Law and Ethics3 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 Business3 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 Topics1-6 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 Design3 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 590 MBA Thesis I3 Credits**

**Prerequisites:** Completion of approved research design and methods course and permission of MBA Director.

**BUGB 592 MBA Thesis II3 Credits****BUGB 595 Research Practicum3 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 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**BUGB 599 Internship3 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)

**CHEM 100 Chemistry and Society-GTSC23 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 Chemistry3 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-GTSC14 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-GTSC11 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**

**CHEM 122 Principles of Organic Chemistry-GTSC14 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-GTSC11 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 Chemistry4 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-GTSC14 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. Four lectures and one three-hour laboratory per week.

**Prerequisites:** One year of high school chemistry, mastery of algebra, and a passing score on the chemistry assessment exam.

**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**

**CHEM 131L General Chemistry Laboratory I-GTSC11 Credit**

Laboratory course to accompany CHEM 131. Designed for students planning a major in science. Basic chemistry laboratory techniques will be introduced. Experimental topics include: basic measurements and significant figures, determining the electronic structure of atoms, chromatography basics, determining empirical formulas, and calorimetry.

**Prerequisites:** One year of high school chemistry, mastery of algebra, and a passing score on the chemistry assessment exam.

**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**

**CHEM 132 General Chemistry II-GTSC14 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-GTSC11 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**

**CHEM 151 Engineering Chemistry-GTSC14 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-GTSC11 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.

**CHEM 196 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**CHEM 296 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**CHEM 300 Environmental Chemistry4 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 Chemistry3 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 Laboratory1 Credit**

Lab component required for CHEM 301.

**Prerequisites:** CHEM 132/CHEM 132L.

**Corequisites:** CHEM 301.

**CHEM 311 Organic Chemistry I4 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 Laboratory1 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.

**CHEM 312 Organic Chemistry II4 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 Laboratory1 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.

**CHEM 315 Biochemistry I3 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 315L Biochemistry Laboratory1 Credit**

Lab component required for CHEM 315.

**Prerequisites:** CHEM 312/CHEM 312L.

**Corequisites:** CHEM 315.

**Equivalent Course(s):** CHEM 317L

**CHEM 316 Biochemistry II3 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 Laboratory1 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 I3 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, chemical 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 II3 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 I2 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.

**CHEM 351 Inorganic Chemistry I3 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 II3 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 Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**CHEM 396 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**CHEM 397 Structured Research1-3 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 I3 Credits**

Selected topics in organic chemistry are discussed in detail.

**Prerequisites:** CHEM 312 and CHEM 322.

**CHEM 422 Advanced Organic Chemistry II3 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 Analysis3 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 Laboratory1 Credit**

Lab component required for CHEM 431.

**Prerequisites:** CHEM 301/CHEM 301L.

**Corequisites:** CHEM 431.

**CHEM 442 Communicating in the World of Chemistry1 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 Research1-3 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 Seminar1 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 Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**CHEM 496 Topics3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**CHEM 497 Structured Research1-3 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)

**CIVE 127 Engineering Drawing for Civil Engineering3 Credits**

Exploration of linetypes, symbols, and drawing and dimensioning standards by generating drawings using drafting instruments and computer-aided-drafting (CAD). Drawings start with basic sketching on the board and continue through 3-D solid modeling on CAD. Print reading includes interpretation of site, foundation, floor, and roof plans, as well as elevations and sections.

**Terms Typically Offered:** Fall.

**CIVE 212 Introduction to Geomatics3 Credits**

Introduction to basic linear, angular, area, and volume field measurements common to civil engineering endeavors with application of GPS and GIS technology.

**Prerequisites:** MATH 151 or MATH 135.

**Terms Typically Offered:** Fall.

**CIVE 313 Theoretical Fluid Mechanics3 Credits**

Basic principles of fluid mechanics. Covers fluid properties, hydrostatics, fluid flow concepts, including continuity, energy, momentum, dimensional analysis and similitude, and flow in closed conduits.

**Prerequisites:** ENGR 261.

**CIVE 397 Structured Research1-3 Credits**

## Computer Aided Drafting (CADT)

**CADT 101 Introduction to Computers1 Credit**

Introduction to hardware and software including operating systems, word processing, spreadsheets, desktop publishing and presentation software.

**CADT 105 Print Reading - Residential, Commercial, Industrial3 Credits**

Reading and interpreting blueprints for residential, commercial, and industrial construction, including site plans. How to do a project take-off and project site layout.

**CADT 106 Computer Aided Design3 Credits**

Basic principles of computer aided design through the development of practical drawing problems using a computer. One one-hour lecture and two one and one-half laboratories per week.

**CADT 107 Advanced Computer Aided Design3 Credits**

Advanced work in computer aided drafting principles including 2-D, 3-D, shading, etc. One one-hour lecture and two one and one-half hour laboratories per week.

**Prerequisites:** CADT 106, or permission of instructor.

**CADT 108 CAD - Mechanical3 Credits**

Offers the student basic principles of computer aided drafting through the development of practical drawing problems using CAD software on the computer. One one-hour lecture and two one and one-half laboratories per week.

**CADT 109 CAD-Mechanical Engineering3 Credits**

Advanced work in computer aided drafting principles including 2-D and 3-D shading, solid based modeling and parametric modeling. One one-hour lecture and two one and one-half hour laboratories per week.

**CADT 110 CAD Application4 Credits**

This course offers the student an opportunity to apply skills and knowledge gained in earlier courses. The student will work on computer aided drawings relating to their career field of interest and advice of faculty. Internship or cooperative education may be substituted with approval of advisor. Two one-hour lectures and two one and one-half hour laboratories per week.

**Prerequisites:** CADT 107 and CADT 109.

**CADT 130 CAD-Civil3 Credits**

Civil drafting will explore the aspects of current day mapping and topography, instruments, conventions and practices, contours, traverses, profiles, surveying, and photogrammetry through CAD drawings. Students will be introduced to GIS, graphical interface systems. One one-hour lecture and two one and one-half hour laboratories per week.

**CADT 135 CAD Civil II3 Credits**

Exploration of advanced aspects of current day mapping and topography. An in-depth instruction on road plan and profiles, cut and fill techniques and further instruction using skills from CADT 130.

**Prerequisites:** CADT 130.

**CADT 140 Architectural Theory and Structural Materials3 Credits**

Elementary design strategies, theories and methods for architectural documents. Students will use appropriate computer software to meet professional standards, apply properties of architectural components and materials to develop buildable assemblies, and analyze an architectural process drawing for compliance. Codes, standards, and testing will be emphasized, including an introduction to mechanical, electrical, plumbing and systems requirements.

**CADT 141 Structural Materials3 Credits**

This course will identify the properties and applications of the materials of industry. Codes, standards and testing will be emphasized in the fields of architecture. There will be an introduction to mechanical, electrical, plumbing and systems requirement.

**Corequisites:** CADT 140 and CADT 142.

**CADT 142 CAD - Residential Architecture3 Credits**

Residential Architectural CAD will provide the student with a realistic residential project that will begin with schematic design and take him/her through to construction documents. Construction documents will include: site plan, floor plan, exterior elevations, foundation plan, floor framing plan, roof framing plan, building section, and a variety of construction details. One one-hour lecture and two one and one-half hour laboratories per week.

**CADT 143 CAD-Commercial Architecture3 Credits**

Commercial Architectural CAD will emphasize the creation of commercial project plans that will 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. One one-hour lecture and two one and one-half hour laboratories per week.

**CADT 150 Advanced Images - Introduction to Animation4 Credits**

Advanced work in computer aided drafting principles including 3-D renderings and animation techniques. One one-hour lecture and two one and one-half hour laboratories per week.

**CADT 195 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**CADT 196 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**CADT 210 Project3 Credits**

Exploration of computer aided drawings relating to Building Information Modeling. Teaches the concepts and principles of creating 3D parametric models of mechanical, electrical and plumbing systems from engineering design through construction documentation.

**CADT 296 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

## Computer Information Systems (CISB)

**CISB 101 Business Information Technology3 Credits**

Introduction to computing and software, including computing systems in a business environment and applicable software.

**CISB 205 Advanced Business Software3 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 Programming3 Credits**

Beginning programming with emphasis on solving problems in the context of business applications.

**CISB 210 Fundamentals of Information Systems3 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 Cybersecurity3 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 221 Introduction to Digital Forensics3 Credits**

Introduction to computer and digital forensics. Topics include network, hardware, and operating principles of computers and mobile devices, as they pertain to digital forensics and cybersecurity investigations. Special application on applying digital forensics principles to real world case studies.

**Terms Typically Offered:** Spring.

**CISB 241 Introduction to Business Analysis3 Credits**

Introduction to descriptive, predictive and inferential analysis techniques, data interpretation, business research skills, and techniques for analysis and modeling of business problems in the workplace, using appropriate software.

**Prerequisites:** MATH 113 or higher.

**Equivalent Course(s):** STAT 241

**CISB 295 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**CISB 305 Solving Problems Using Spreadsheets3 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.

**CISB 306 Solving Problems Using Databases3 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 Systems3 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 Security3 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 Infrastructure3 Credits**

Information systems infrastructure, computer architecture and communications networks in an organizational context.

**Prerequisites:** CISB 210.

**CISB 331 Advanced Business Programming3 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 Making3 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 Visualization3 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 Analytics3 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 Education3-12 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**CISB 395 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**CISB 396 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**CISB 410 Project Management3 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 Design3 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 Administration3 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 Systems3 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 Systems3 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 Systems3 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 Systems1-3 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 Education3-12 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**CISB 495 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**CISB 496 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**CISB 500 Management of Information Systems3 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 505 Advanced Project Management3 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 Systems3 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)

**CSCI 100 Computers In Our Society3 Credits**

The 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

**CSCI 104 Intro to Computer Hardware1 Credit**

Computer hardware introduction. Includes purchase, maintenance and repair of computer hardware (desktops, laptops, servers and mobile devices, wired and wireless network hardware) in individual and corporate settings.

**CSCI 106 Web Page Design I3 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.

**Prerequisites:** Familiarity with Windows.

**CSCI 110 Beginning Programming3 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 majors outside the scientific disciplines. "Subtitle" indicates language of implementation.

**Prerequisites:** MATH 110 or MATH 113 (either may be taken concurrently) or permission of instructor.

**CSCI 110L Beginning Programming Laboratory1 Credit**

An optional laboratory course to be taken as a co-requisite to CSCI 110. This lab is intended for those students currently enrolled in CSCI 110 who have little or no previous programming/computer experience. The student taking this course will complete several computer assignments designed to increase the student's knowledge of programming, debugging, and program design. "Subtitle" indicates language of implementation.

**Prerequisites:** MATH 113 or permission of instructor.

**Corequisites:** CSCI 110.

**CSCI 111 CS1: Foundations of Computer Science4 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 Structures4 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 Science4 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 Web Page Design II3 Credits**

A continuation of CSCI 106. Students will learn a scripting language and how to incorporate scripts in web page design.

**Prerequisites:** CSCI 106 or permission of instructor.

**CSCI 241 Computer Architecture and Assembly Language4 Credits**

Architecture of a representative processor and its assembly language, introduction to hardware description 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, peripherals and interfacing.

**Prerequisites:** CSCI 112.

**CSCI 250 CS3: Introduction to Algorithms3 Credits**

Complexity analysis and program performance; abstract data types such as lists, trees, stacks and queues; sorting; searching and hashing.

**Prerequisites:** CSCI 112.

**CSCI 260 Introduction to Database3 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 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**CSCI 305 Technology for Mathematics Educators3 Credits**

Project- and activity-based introduction to technology resources appropriate for use by elementary mathematics educators. Focus will be on spreadsheets-programming, modeling, and data manipulation-supplemented with topics chosen from interactive geometry software, interactive applets, simple webpage design, educational simulations and games, and other mathematical technology tools.

**Prerequisites:** MATH 113 and MATH 301.

**CSCI 306 Web Page Design III3 Credits**

Continuation of CSCI 206. Students will consider web site management issues, server-side scripting, security, and database interactions.

**Prerequisites:** CSCI 206 or permission of instructor.



**CSCI 310 Advanced Programming1-3 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 321 Assembly Language Programming3 Credits**

Introduction to assembler, creating and executing assembly language program, organization of machine under study, data definition, addressing techniques, data movement instruction, branching instructions, flag and PSW registers, arithmetic instructions, macros and their implementation, hardware and software interrupts, storing instructions, typical applications.

**Prerequisites:** CSCI 241.

**CSCI 322 Embedded Systems3 Credits**

Introduction to design of embedded systems. Topics include: basic computer electronics, embedded digital communications, and embedded software design.

**Prerequisites:** CSCI 321.

**CSCI 330 Programming Languages3 Credits**

Principles and concepts which characterize various classes of high-level, computer programming languages are covered. Topics will include syntax and semantic issues, data types/classes, control structures, binding, and storage allocation.

**Prerequisites:** CSCI 250.

**CSCI 333 UNIX Operating Systems3 Credits**

Introduction to systems programming with UNIX. Topics covered include elementary and advanced user commands, file handling, process control, library routines, device drivers, shell programming, and UNIX utilities.

**Prerequisites:** CSCI 112 or knowledge of C++/C.

**CSCI 337 User Interface Design3 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.

**CSCI 345 Video Game Design3 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. Students will develop at least three games during the semester.

**Prerequisites:** CSCI 112.

**CSCI 360 Robotic Perception and Planning3 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 Mining3 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 Security3 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 Programming3 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.

**Prerequisites:** CSCI 250.

**CSCI 380 Operations Research3 Credits**

Methods of linear and dynamic programming, inventory and replacement models, queuing theory, game theory, PERT, CPM, and simulation.

**Prerequisites:** MATH 152, STAT 200, and CSCI 111.

**CSCI 393 Internship1-3 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 Study1-3 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 405 Mobile Application Development3 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, CSCI 337 or CSCI 206, or permission of instructor.

**CSCI 420 Software Security3 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 advantages of the vulnerabilities as well as various mitigation techniques.

**Prerequisites:** CSCI 241 and CSCI 370.

**Terms Typically Offered:** Spring.

**CSCI 425 Python Machine Learning3 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 365.

**Terms Typically Offered:** Spring.

**CSCI 445 Computer Graphics3 Credits**

Introduction to the use of the computer to produce images: two and three dimensional graphics, algorithms and data structures for hidden lines and surfaces, shading, and reflections.

**Prerequisites:** MATH 152 and CSCI 250.

**CSCI 450 Compiler Structure3 Credits**

Structures and techniques used in compiler writing are discussed with emphasis on scanners, symbol tables, parsers and code generation. The front end of a recursive descent parser is written for the semester project. Error analysis and code optimization are discussed as time permits.

**Prerequisites:** CSCI 241.

**Corequisites:** CSCI 330.

**CSCI 460 Database Design3 Credits**

Design and implementation of relational databases. Approaches and methods of design and normalization, SQL, integrity, and security will be discussed.

**Prerequisites:** CSCI 250.

**CSCI 465 Network/Application Security3 Credits**

Exploration of advanced topics in network and web-based application security such as network vulnerability management, network monitoring, intrusion detection and prevention, government and industry security compliances, wireless security, most common web application security flaws, browser and database security principles, and authentication and authorization in web applications.

**Prerequisites:** CSCI 420.

**CSCI 470 Operating Systems Design3 Credits**

Aspects of computer operating system design and implementation including memory management, processor management, device management, information management and performance evaluation methods. Some knowledge of C is required.

**Prerequisites:** CSCI 250 and CSCI 241.

**CSCI 480 Theory of Algorithms3 Credits**

Techniques for analyzing time and space requirements of computer algorithms. Models are set up for analysis and techniques are applied to algorithms related to sorting and searching, pattern-matching, graph problems and other selected problems. The notion of NP-hard problems is introduced and related problems are discussed.

**Prerequisites:** MATH 152 and CSCI 250.

**CSCI 482 Theory of Computation3 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 Networks3 Credits**

Topics include: 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. Instructors may choose to implement a sample network in which case the contents may be particularized to that network.

**Prerequisites:** STAT 200.

**CSCI 486 Artificial Intelligence3 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 or Prolog.

**Prerequisites:** CSCI 250; and MATH 151 or MATH 135.

**CSCI 490 Software Engineering3 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 250 and CSCI 330.

**CSCI 494 Seminar1-3 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 Study1-3 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)

**CONM 181 Principles of Construction Management3 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 234 Graphic Communication for Construction Management3 Credits**

Integrated approaches for developing plan reading skills and creation of visual communications, including 3D digital model and pictorial development using current industry software.

**CONM 264 Mechanical/Industrial Systems3 Credits**

Analysis and design understanding of specialty mechanical and industrial processes. Includes fundamentals of thermodynamics, fluids, control interface issues, system testing and commissioning. Emphasis on fundamental theory followed by proof of concepts through practicum. Lecture, lab and field exercises.

**Prerequisites:** MATH 113, CONM 101, and CONM 181.

**CONM 295 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**CONM 316 Construction Materials and Methods3 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 340 Construction Estimating and Bidding3 Credits**

Application of industry-recognized methods of construction estimating to compile conceptual systems and detailed estimates. Emphasis on students' ability to communicate estimate results in written and oral presentations.

**Prerequisites:** CONC 228.

**CONM 361 Advanced MEP Systems3 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 Strength3 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 Safety and the Regulatory Environment3 Credits**

Impact of safety on the construction industry, in-depth discussions concerning application of O.S.H.A. Safety and Health Standards for the Construction Industry. Course emphasis on safety management training for jobsite supervisory personnel. Additionally, various regulatory requirements encountered in construction addressed.

**Prerequisites:** CONC 101 and junior status.

**CONM 380 Construction Project Management3 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 340.

**CONM 395 Independent Study1-3 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 Construction3 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 Laboratory1 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 Scheduling3 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:** CONC 228.

**CONM 475 Construction Company and Financial Management3 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 Issues3 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 Study1-3 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 Internship1-6 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)

**CONC 101 Construction Safety and Regulations3 Credits**

Construction safety and its effect on productivity and employee morale. Application of basic principles of accident prevention. Complying with the various federal, state, and local laws governing safety (OSHA), hazardous chemicals, and drugs in the work place.

**CONC 104 Architectural/Civil Print Reading2 Credits**

Reading and hand-drafting prints as used in industry, application of that information to various architectural and civil industries.

**CONC 116 Building Materials3 Credits**

Introduction to building materials and methods commonly used in the construction industry. Includes an overview of foundation systems, concrete, steel, and wood products.

**Terms Typically Offered:** Fall, Spring.

**CONC 117 Building Materials Testing3 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.

**CONC 161 Building Mechanical/Electrical3 Credits**

Introduction to basic electrical, plumbing, heating, ventilation, and air conditioning systems found in residential and commercial buildings. Basic theory and design concepts included.

**Terms Typically Offered:** Fall, Spring.

**CONC 196 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**CONC 208 Construction Equipment3 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 Surveying3 Credits**

The fundamentals of modern plane surveying techniques and basic surveying instruments. Emphasis on construction-related aspects of surveying and the development of skills in using surveying field information.

**Prerequisites:** MATH 107 or MATH 113.

**CONC 228 Estimating and Cost Control3 Credits**

The estimation process, the role of the estimator, types of estimation, CSI Divisions, bid/contract documents, change order pricing, value engineering, design build projects, and estimate compilation and cost controls.

**Prerequisites:** CADT 105, CONC 116, CONC 161, CONC 208 or permission of instructor.

**CONC 234 Commercial/Industrial Plans2 Credits**

Introduction to the commercial/industrial construction industry. Processes, practices, and materials typically used in commercial/industrial construction will be studied.

**CONC 245 Project Management3 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, Permits3 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 Supervisor3 Credits**

Planning the sequence, duration and relationship of activities for a construction process. Communicate the plan to contractual parties and to use the plan as reference point for examining project changes. Includes planning for safety, organization, manpower, problem solving, and site layout.

**Prerequisites:** Permission of instructor.

**CONC 270 Practical Applications4 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 296 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

## Criminal Justice (CRMJ)

**CRMJ 110 Orientation to Criminal Justice Inquiry1 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.

**CRMJ 196 Topics:1 Credit**

Course may be taken multiple times up to maximum of 15 credit hours.

**CRMJ 201 Introduction to Criminal Justice3 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.

**Prerequisites:** CRMJ 110 (May be taken concurrently with CRMJ 201).

**CRMJ 210 Emergency Dispatching4 Credits**

Fundamentals of emergency dispatching. Includes basic principles of emergency communications operations and technology, call management and classification, legal aspects of dispatching, and stress management. Extensive practical training in police and fire emergency dispatching scenarios.

**Prerequisites:** ENGL 111, CRMJ 201, and MATH 107 or higher.

**CRMJ 280 Crime Scene Processing2 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 Laboratory1 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.

**CRMJ 296 Topics1-4 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**CRMJ 301 Criminal Procedure3 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.

**CRMJ 302 Ethics in Criminal Justice3 Credits**

Examination of ethics in the criminal justice system from investigation, arrest, prosecution, defense, and corrections.

**Prerequisites:** CRMJ 310, CRMJ 320, and CRMJ 328.

**CRMJ 310 The Police Process3 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.

**CRMJ 311 Victimology3 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.

**CRMJ 315 Research Methods in Criminal Justice3 Credits**

Research methods and their application to Criminal Justice.

**Prerequisites:** CRMJ 310, CRMJ 320, CRMJ 328, MATH 110 or higher, and STAT 215.

**CRMJ 320 Corrections3 Credits**

The role of corrections in the criminal justice system: history, guiding philosophies and theories, treatment approaches, custody issues, and supervision of offenders on probation and parole.

**Prerequisites:** CRMJ 201 or permission of instructor.

**CRMJ 325 Juvenile Justice and Delinquency3 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.

**CRMJ 328 American Court Systems3 Credits**

The American court system; local, state, and national, 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

**CRMJ 330 Intimate Partner Violence3 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 Policing3 Credits**

Contemporary policing philosophy used and accepted by most policing organizations, domestic and foreign. Concept of community policing, history of the movement as well as 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 utilized.

**Prerequisites:** CRMJ 310, CRMJ 320, and CRMJ 328.

**CRMJ 340 Community Corrections3 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.

**CRMJ 345 Mental Illness and Crime3 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 Deviance3 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.

**CRMJ 370 Criminology3 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.

**CRMJ 375 Women and Crime3 Credits**

Nature of criminality pertaining to women. How and why women are treated differently than males 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.

**CRMJ 380 Crisis Intervention in Criminal Justice3 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 Study1-3 Credits**

**Prerequisites:** CRMJ 310, CRMJ 320, and CRMJ 328.

Course may be taken multiple times up to maximum of 6 credit hours.

**CRMJ 396 Topics1-3 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 Corrections3 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.

**CRMJ 410 Criminal Investigations3 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 major goals of an investigation. Use of practical and interactive experiences involves students in the investigative process by utilizing field exercises such as evidence collection and preservation, simulations related to crime scenes, surveillance activities, victim/suspect interviews and interrogations, and sound case preparation.

**Prerequisites:** CRMJ 310, CRMJ 320, and CRMJ 328.

**CRMJ 412 Constitutional Law3 Credits**

An 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

**CRMJ 415 Counter-Terrorism and Law Enforcement3 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 field of counterterrorism and homeland security. Exploration of various issues facing law enforcement agencies in counterterrorism efforts.

**Prerequisites:** CRMJ 310, CRMJ 320, and CRMJ 328.

**CRMJ 420 Criminal Law3 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.

**CRMJ 425 Trial, Evidence and Legal Advocacy3 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 argument throughout the adversarial process. Considers trial procedure and the law of evidence.

**Prerequisites:** CRMJ 310, CRMJ 320, and CRMJ 328.

**CRMJ 435 White-Collar Crimes3 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 Punishment3 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, or permission of instructor.

**CRMJ 445 Media and Crime3 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 Justice3 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.

**CRMJ 470 Restorative Justice3 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 Exchange3 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, and permission of instructor.

**CRMJ 490 Comparative Criminal Justice3 Credits**

Capstone course. Includes survey of selected international criminal justice systems, including police, courts, and correctional components. International perspectives of policing, courts, and corrections examined to determine variations across countries. Topics of transnational crime, terrorism, and juvenile justice explored from a global perspective to determine if the United States significantly differs in methodology, intensity, and focus of public policy. 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.

**CRMJ 495 Independent Study1-3 Credits**

**Prerequisites:** CRMJ 310, CRMJ 320, and CRMJ 328.

Course may be taken multiple times up to maximum of 6 credit hours.

**CRMJ 496 Topics1-3 Credits**

**Prerequisites:** CRMJ 310, CRMJ 320, and CRMJ 328.

Course may be taken multiple times up to maximum of 15 credit hours.

**CRMJ 499 Internship1-15 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 Seminar3 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 Analysis3 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 Leadership3 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 Analysis3 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 Theory3 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 Justice3 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 Justice3 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 Justice3 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 Agencies3 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 Administration3 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 Justice3 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 Corrections3 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 Justice3 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 Experience3 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.

## Criminal Justice-POST (CRJW)

**CRJW 101 Basic Police Academy6 Credits**

Conforms to POST standards and state certification requirements as well as the basic skills and knowledge necessary to perform the entry level duties of a peace officer. Emphasis will be on simulating actual situations utilizing a lecture and laboratory mode of learning.

**Prerequisites:** Permission of Academy Director.

**Fees:** Yes.

**CRJW 102 Basic Police Academy II10 Credits**

Conforms to POST standards and state certification requirements as well as the basic skills and knowledge necessary to perform the entry level duties of a peace officer. Emphasis will be on simulating actual situations utilizing a lecture and laboratory mode of learning.

**Prerequisites:** Permission of Academy Director.

**Fees:** Yes.

**CRJW 105 Basic Law6 Credits**

Conforms to POST standards and state certification requirements as well as the basic skills and knowledge necessary to perform the entry level duties of a peace officer. Emphasis will be on United States Constitution, arrest, search and seizure, interrogation and confessions, rules of evidence, Colorado Criminal Code, Colorado Traffic Code, Colorado Children's Code, Liquor Code and controlled substances.

**Prerequisites:** Permission of Academy Director.

**Fees:** Yes.

**CRJW 106 Arrest Control3 Credits**

Covers the 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.

**Fees:** Yes.

**CRJW 107 Law Enforcement Driving2 Credits**

Covers the 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.

**Fees:** Yes.

**CRJW 108 Firearms3 Credits**

Discusses the 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.

**Fees:** Yes.

**CRJW 210 Emergency Dispatching4 Credits**

Introduction to the basic fundamentals of emergency dispatching, to include basic principles of emergency communications operations and technology, call management and classification, legal aspects of dispatching, and stress management. Extensive practical training in police and fire emergency dispatching scenarios.

**Prerequisites:** ENGL 111, MATH 107 or higher, CRMJ 201, and permission of instructor.

**CRJW 296 Topics1-4 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

## Culinary Arts (CUAR)

**CUAR 100 Culinary Program Fundamentals3 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.

**CUAR 101 Food Safety & Sanitation2 Credits**

Exploration of the basic rules of sanitation, food-borne illnesses, safe food temperatures, and safe food handling techniques.

**CUAR 115 Introduction to Sustainable Cuisine3 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.

**CUAR 120 Wine and Spirits2 Credits**

Examination of types of beverages and equipment including wines, beers, and spirits. Profitability, marketing, federal and local laws, and service will be discussed. The history of making and processing wines, spirits and beers will be studied.

**CUAR 121 Introduction to Food Production1 Credit**

Fundamental principles of commercial kitchen operations.

**CUAR 122 Introduction to Hot Foods1 Credit**

Fundamental principles of stocks, soups, sauces, gravies, and products in the kitchen.

**CUAR 123 Introduction to Garde Manger1 Credit**

Fundamental principles of cold foods and non-alcoholic beverage preparation.

**CUAR 124 Food Production Applications1 Credit**

Basic cooking principles and practices in the production of stocks, soups, sauces and gravies, and vegetables, starches, fruits, salads, and dressing.

**CUAR 125 Introduction to Foods3 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.

**CUAR 129 Center of the Plate3 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.

**CUAR 131 Vegetables, Starches, Pastas, Breakfast and Short Order Cookery1 Credit**

Preparation of vegetables, starches, breakfast and grilled items.

**CUAR 132 Center of the Plate: Meat1 Credit**

Preparation of a variety of meat dishes.

**CUAR 133 Center of the Plate: Poultry, Fish1 Credit**

Preparation of a variety of seafood and poultry dishes.

**CUAR 134 Food Production Applications1 Credit**

Practical application of food production techniques related to courses CUAR 121, CUAR 122, CUAR 123, CUAR 134, CUAR 131, CUAR 132, and CUAR 133.

**Prerequisites:** CUAR 124.

**CUAR 141 Basic Baking Principles and Ingredients1 Credit**

Fundamentals of baking terminology, principles of baking, and the characteristics and functions of the main ingredients used in bakery production.

**CUAR 142 Basic Yeast-Raised Products and Quick Breads1 Credit**

Application of basic yeast-raised baking principles.

**CUAR 143 Cakes, Pies and Pastry, Cookies1 Credit**

Application of basic cake, pie, pastry, and cookie production.

**CUAR 144 Baking Applications1 Credit**

Application of basic baking principles and production.

**CUAR 145 Introduction to Baking3 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.

**CUAR 150 Baking: Decorating and Presentation3 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 Preparation3 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.

**CUAR 152 Individual Fancy Desserts Production3 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.

**CUAR 153 Confectionaries and Petit Fours3 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.

**CUAR 156 Nutrition for the Hospitality Professional3 Credits**

Fundamentals of nutrition as they apply to the food service industry.

**CUAR 160 Cake Decorating4 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.

**CUAR 163 Advanced Wedding Cakes3 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.

**CUAR 179 Wines, Spirits and Beers3 Credits**

Explores production, marketing and service of wines, spirits and beers from around the world. Includes local and regional craft wine, spirit and beer production. Covers profitability, marketing, federal and local laws, identification of equipment, glassware, and staffing. Service Safe Alcohol certification exam administered.

**Fees:** Yes.

**CUAR 190 Dining Room Management3 Credits**

Exploration of management techniques, organization, and service-related skills common to dining room operations.

**Terms Typically Offered:** Fall, Spring.

**CUAR 196 Topics:1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**CUAR 220 Fundamentals of Healthy Cooking3 Credits**

Application of theory and production techniques required to prepare and serve foods that emphasize the importance of a healthy diet, promote beneficial eating habits, and encourage the personal enjoyment of cooking and eating.

**Fees:** Yes.

**CUAR 236 Advanced Baking3 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.

**CUAR 238 American Regional Cuisine3 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 and CUAR 129.

**Terms Typically Offered:** Fall, Spring.

**CUAR 245 International Cuisine3 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.

**CUAR 251 Advanced Garde Manger and Hors D'Oeuvres3 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.

**CUAR 255 Supervision in the Hospitality Industry3 Credits**

Skills necessary for creating a goal-oriented environment utilizing management principles in the hospitality industry.

**CUAR 261 Cost Controls3 Credits**

Explores the costs usually found in the food service industry and the techniques used to control them.

**CUAR 262 Purchasing for the Hospitality Industry3 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.

**CUAR 269 Dietary Baking3 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.

**CUAR 271 Techniques of Culinary Competition - Hot Food3 Credits**

Fundamental principles and technical skills, required to engage in hot food culinary competition. Precision in the areas of knife skills, mise en place, recipe development, perfect execution of culinary technique, and exploration of in-depth organizational processes.

**CUAR 271A Advanced Techniques of Culinary Competition - Hot Food3 Credits**

Fundamental principles and technical skills required to engage in hot food culinary competition. Precision in knife skills, mise en place, recipe development, perfect execution of culinary technique, and exploration of in-depth organizational processes. Advanced technique of culinary competition designed for culinary teams advancing to the next level of competition.

**Prerequisites:** CUAR 271.

**CUAR 272 Techniques of Culinary Competition - Cold Food3 Credits**

Fundamental principles and technical skills required to engage in cold food culinary competition. Expose students to theories and principles of cold food show platters, elementary glazing techniques, hot food shown cold and other cold food competition concepts.

**CUAR 272A Advanced Techniques of Culinary Competition - Cold Food3 Credits**

Fundamental principles and technical skills required to engage in cold food culinary competition. Precision in knife skills, mise en place, recipe development, perfect execution of culinary techniques, and exploration of in-depth organizational processes. Advanced techniques of culinary competition for culinary teams advancing to the next level of competition.

**Prerequisites:** CUAR 272.

**CUAR 281 Internship1-6 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 Practicum4 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 179, CUAR 190, CUAR 238, CUAR 245, CUAR 251, and CUAR 262.

**Terms Typically Offered:** Fall, Spring, Summer.

**CUAR 295 Independent Study1-3 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.

**Fees:** Yes.

**CUAR 297 Practicum1-2 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

## Dance (DANC)

**DANC 115 Dance Appreciation-GTAH13 Credits**

Exploration of the roots and trends of the art of dance from the primitive to the contemporary. Introduction of esthetic 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**

**DANC 154 Dance Team1 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 Performance1 Credit**

Student participation in the production of a dance supervised by faculty or guest artist. Students must audition.

**Corequisites:** one technique class.

Course may be taken 2 times for credit.

**DANC 160 Beginning Ballet1 Credit**

Includes alignment, balance, endurance, flexibility, and strength in elementary technical proficiency.

**DANC 169 Beginning Modern Dance1 Credit**

Includes alignment, balance, endurance, flexibility, and strength in elementary technical proficiency.

**DANC 174 Beginning Jazz Dance1 Credit**

Including terminology, theory, history & critical analysis of the Art Form.

**DANC 177 Beginning Tap Dance1 Credit**

Including terminology, theory, history & critical analysis of the Art Form.

**DANC 180 Beginning Hip Hop Dance1 Credit**

Fundamentals of Hip Hop, including alignment, balance, endurance, flexibility, and strength, in elementary technical proficiency.

Course may be taken 2 times for credit.

**DANC 181 Ballet I2 Credits**

Beginning ballet technique for students intending to progress to an intermediate level.

Course may be taken 2 times for credit.

**DANC 182 Jazz I2 Credits**

Beginning jazz technique for students intending to progress to an intermediate level.

Course may be taken 2 times for credit.

**DANC 183 Modern I2 Credits**

Beginning modern technique for students intending to progress to an intermediate level.

Course may be taken 2 times for credit.

**DANC 184 Tap I2 Credits**

Beginning tap technique for students intending to progress to an intermediate level.

Course may be taken 2 times for credit.

**DANC 196 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**DANC 219 Ballroom Dance2 Credits****DANC 225 The Healthy Dancer3 Credits**

Exploration into conditioning, nutrition, injury prevention, basic anatomy and motivational techniques unique to the dance student.

**DANC 230 Modern IIA2 Credits**

Intermediate modern dance technique.

**Prerequisites:** DANC 169 or permission of instructor.

Course may be taken 2 times for credit.

**DANC 231 Modern IIB2 Credits**

Intermediate modern dance technique.

**Prerequisites:** DANC 230 or permission of instructor.

Course may be taken 2 times for credit.

**DANC 232 Jazz IIA2 Credits**

Intermediate jazz dance technique.

**Prerequisites:** DANC 174, or permission of instructor.

Course may be taken 2 times for credit.

**DANC 233 Jazz IIB2 Credits**

Intermediate jazz dance technique.

**Prerequisites:** DANC 232 or permission of instructor.

Course may be taken 2 times for credit.

**DANC 234 Ballet IIA2 Credits**

Intermediate ballet technique.

**Prerequisites:** DANC 160, or permission of instructor.

Course may be taken 2 times for credit.

**DANC 235 Ballet IIB2 Credits**

Intermediate ballet technique.

**Prerequisites:** DANC 234 or permission of instructor.

Course may be taken 2 times for credit.

**DANC 236 Tap IIA2 Credits**

Intermediate tap dance technique.

**Prerequisites:** DANC 177 or permission of instructor.

Course may be taken 2 times for credit.

**DANC 237 Tap IIB2 Credits**

Intermediate tap dance technique.

**Prerequisites:** DANC 236 or permission of instructor.

Course may be taken 2 times for credit.

**DANC 250 Dance Improvisation2 Credits**

Introduction to and application of basic theories of dance improvisation.

**DANC 254 Dance Team1 Credit**

Participation on the Mavettes Dance Team at the sophomore standing level.

**DANC 255 Choreography3 Credits**

Introduction to and application of basic theories of choreography, including principles of critical analysis.

**Prerequisites:** DANC 250 or permission of instructor.

**DANC 256 Dance Performance1 Credit**

Student participation in the production of a dance supervised by faculty or guest artist. Students must audition.

**Corequisites:** one technique class.

Course may be taken 2 times for credit.

**DANC 280 Hip Hop I11 Credit**

Intermediate theory and practice of Hip Hop.

**Prerequisites:** DANC 180 or permission of instructor.

**DANC 290 Choreography Practicum I1 Credit**

Student practice in choreography and producing an original dancework. May be repeated once for credit.

Course may be taken 2 times for credit.

**DANC 296 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**DANC 310 Dance Pedagogy3 Credits**

Theory and application of methods of teaching dance techniques.

**Prerequisites:** 4 semester hours of dance technique (ballet, jazz, modern and/or tap).

**DANC 315 History and Philosophy of Dance I3 Credits**

Cultural and historical exploration of dance, from its primitive roots to the 20th Century.

**Prerequisites:** ENGL 112.

**DANC 316 History and Philosophy of Dance I13 Credits**

Cultural, historic, and aesthetic exploration of dance in the 20th Century.

**Prerequisites:** DANC 315.

**DANC 328 Music Analysis for Dance3 Credits**

Exploration of rhythmic structure inherent in dance, including music notation, rhythmic coordination as it relates to dance and musicality of the body.

**Prerequisites:** Permission of instructor.

**DANC 330 Modern IIIA2 Credits**

Intermediate to advanced modern dance technique.

**Prerequisites:** Permission of instructor.

Course may be taken 2 times for credit.

**DANC 331 Modern IIIB2 Credits**

Intermediate to advanced modern dance technique.

**Prerequisites:** DANC 330 or permission of instructor.

Course may be taken 2 times for credit.

**DANC 332 Jazz IIIA2 Credits**

Intermediate to advanced jazz dance technique.

**Prerequisites:** Permission of instructor.

Course may be taken 2 times for credit.

**DANC 333 Jazz IIIB2 Credits**

Intermediate to advanced jazz dance technique.

**Prerequisites:** Permission of instructor.

Course may be taken 2 times for credit.

**DANC 334 Ballet IIIA2 Credits**

Intermediate to advanced ballet technique.

**Prerequisites:** Permission of instructor.

Course may be taken 2 times for credit.

**DANC 335 Ballet IIIB2 Credits**

Intermediate to advanced ballet technique.

**Prerequisites:** Permission of instructor.

Course may be taken 2 times for credit.

**DANC 336 Tap IIIA2 Credits**

Intermediate to advanced tap dance technique.

**Prerequisites:** Permission of instructor.

Course may be taken 2 times for credit.

**DANC 337 Tap IIIB2 Credits**

Intermediate to advanced tap dance technique.

**Prerequisites:** Permission of instructor.

Course may be taken 2 times for credit.

**DANC 354 Dance Team1 Credit**

Participation on the Mavettes Dance Team at the junior standing level.

**DANC 355 Advanced Choreography3 Credits**

Advanced investigation and application of theories of choreography, including critical analysis of the art form.

**Prerequisites:** DANC 255 or permission of instructor.

**DANC 356 Dance Performance1 Credit**

Student participation in the production of a dance work supervised by faculty or guest artist.

**Prerequisites:** by audition, DANC 256, or permission of instructor.

**Corequisites:** one technique class.

Course may be taken 2 times for credit.

**DANC 390 Choreography Practicum I11 Credit**

Student practice in choreography and producing an original dance work. May be repeated once for credit.

**Prerequisites:** DANC 290 or permission of instructor.

Course may be taken 2 times for credit.

**DANC 395 Independent Study1-3 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 Modern IVA2 Credits**

Intermediate/advanced modern dance technique.

**Prerequisites:** Permission of instructor.

Course may be taken 2 times for credit.

**DANC 431 Modern IVB2 Credits**

Advanced modern dance technique.

**Prerequisites:** Permission of instructor.

Course may be taken 2 times for credit.

**DANC 432 Jazz IVA2 Credits**

Advanced jazz dance technique.

**Prerequisites:** Permission of instructor.

Course may be taken 2 times for credit.

**DANC 433 Jazz IVB2 Credits**

Intermediate to advanced jazz dance technique.

**Prerequisites:** Permission of instructor.

Course may be taken 2 times for credit.

**DANC 434 Ballet IVA2 Credits**

Intermediate to advanced ballet technique.

**Prerequisites:** Permission of instructor.

Course may be taken 2 times for credit.

**DANC 435 Ballet IVB2 Credits**

Advanced ballet technique.

**Prerequisites:** Permission of instructor.

Course may be taken 2 times for credit.

**DANC 436 Tap IVA2 Credits**

Intermediate to advanced tap dance technique.

**Prerequisites:** Permission of instructor.

Course may be taken 2 times for credit.

**DANC 437 Tap IVB2 Credits**

Advanced tap dance technique.

**Prerequisites:** Permission of instructor.

Course may be taken 2 times for credit.

**DANC 454 Dance Team1 Credit**

Participation on the Mavettes Dance Team at the senior standing level.

**DANC 456 Dance Performance1 Credit**

Student participation in the production of a dance work supervised by faculty or guest artist.

**Prerequisites:** by audition, DANC 356, or permission of instructor.

**Corequisites:** one technique class.

Course may be taken 2 times for credit.

**DANC 490 Choreography Practicum III1 Credit**

Student practice in choreography and producing an original dance work.

**Prerequisites:** DANC 390 or permission of instructor.

Course may be taken 2 times for credit.

**DANC 494 Senior Dance Capstone3 Credits**

Exploration of and preparation for dance professions/careers for upper division dance students.

**DANC 495 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**DANC 496 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**DANC 499 Internship1-9 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

## Digital Filmmaking (FILM)

**FILM 110 Film Expression3 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 115 Cinema Design Tools3 Credits**

Exploration of Digital SLR camera use, raster photo-editing software, and vector drawing software for narrative video production.

**FILM 120 Film Script Analysis3 Credits**

Study of film scripts by critically focusing on story techniques and analytical methods of summarizing, describing, interpreting, discussing and evaluating story narrative.

**FILM 125 Production Drawing & Design3 Credits**

Foundational methods of digital drawing to create characters and scenery for filmmaking concept art and previsualization.

**FILM 130 Short-Form Screenwriting3 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.

**FILM 135 Cinema Editing Aesthetics3 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.

**FILM 139 Professional Documentary Production3 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.

**FILM 140 Commercial & Corporate Production3 Credits**

Introduction to basic digital single-lens reflex camera cinematography theory and techniques through commercial and corporate collaborative production.

**FILM 141 Film Production Assistant I1 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.

**FILM 142 Film Production Assistant II1 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.

**FILM 143 Cinema Lighting3 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.

**FILM 144 Sound Design for Film3 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.

**FILM 145 Commercial & Corporate Video Editing3 Credits**

Basic editing, manipulating and delivery of narrative video. Explore non-linear editing techniques including media management, editing tools, titles, motion control, and transitions.

**FILM 150 Episodic Screenwriting3 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.

**FILM 155 Commercial Audio Design3 Credits**

Principles and application of basic audio recording and mixing principles by enhancing soundtracks for media productions.

**Terms Typically Offered:** Spring.

**FILM 160 Cinema Previsualization3 Credits**

Preproduction development in a digital environment. Includes traditional storyboarding and modern techniques using 3D or photo manipulation software.

**FILM 165 Cinema Production Design3 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.

**FILM 170 Short-Form Production3 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.

**FILM 175 Short-Form Video Editing3 Credits**

Intermediate short-form video editing. Refine workflows and production pipelines, advanced audio integration, transitions, and motion graphics.

**Terms Typically Offered:** Spring.

**FILM 200 Directing Film Actors1 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.

**FILM 209 Production Budget and Scheduling3 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 Management3 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 220 Cinema Audio Design3 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.

**FILM 225 Cinema Capstone I3 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.

**FILM 226 Technical Capstone I3 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.

**FILM 230 Episodic Production3 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 Effects3 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.

**FILM 250 Episodic Video Editing3 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.

**FILM 260 Freelancing for Creatives3 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.

**FILM 265 Producing Indie Films3 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 II4 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.

**FILM 271 Technical Capstone II3 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.

**FILM 299 Internship1-2 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)

**ECSE 320 Learner Development and Individual Differences3 Credits**

Exploration of child development and individual differences to respond to the unique and individualized needs of young children with exceptionalities. Field experience required.

**Prerequisites:** Admission to the Teacher Education Program.

**ECSE 410 Building Family and Community Partnerships1 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 Years3 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 Years3 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.

**Prerequisites:** EDUC 340 and ECSE 320.

**ECSE 450 Individual Behavior Support and Guidance with Young Learners3 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 .

**ECSE 499 Teaching Internship and Colloquia: Early Childhood Ages 3 - 5/ Pre-K6 Credits**

Participation in full-time supervised teaching experience for eight weeks in an inclusive classroom designed to allow the intern the opportunity to apply standards-based education, theories, and philosophies acquired in professional education coursework. Provides support in teaching and learning of Pre-K students, ages 3 - 5.

**Prerequisites:** All program and degree requirements and courses must be successfully completed.

## Economics (ECON)

**ECON 201 Principles of Macroeconomics-GTSS13 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.

**Prerequisites:** Sophomore Standing.

**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-GTSS13 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.

**Prerequisites:** ECON 201.

**Essential Learning Categories:** Social and Behavioral Sciences  
**Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum**

**Terms Typically Offered:** Fall, Spring, Summer.

**ECON 301 Labor Economics3 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. Counts as management course for BBA candidates.

**Prerequisites:** ECON 201 and ECON 202.

**ECON 310 Money and Banking3 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 States3 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 Ideas3 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 Theory3 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 Theory3 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, or equivalent, or permission of instructor.

**ECON 395 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**ECON 396 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**ECON 401 Economic Organization and Public Policy3 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 Economics3 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 Econometrics3 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 Economics3 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 Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**ECON 496 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**ECON 505 Advanced Econometrics3 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 Economics3 Credits**

The focus of this course is the 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.

## Education (EDUC)

**EDUC 100 Introduction to Libraries3 Credits**

Provides a general overview of libraries and their roles in schools and the community. The evolving role of libraries will be explored in the context of professional/school settings, different types of libraries, and the evolution of information, access, and distribution in a digital age.

**EDUC 101 Information Literacy3 Credits**

A theoretical approach to the flow of information and a practical introduction to the skills necessary to navigate information systems. Print and electronic resources; legal, economic, social and public aspects of information resources; strategies for critical evaluation of information resources; library services and resources.

**EDUC 115 What It Means To Be An Educator1 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. Please note: Students must earn a grade of A or B in this class if they desire to be admitted to the Teacher Education program.

**Prerequisites:** ENGL 111.

**EDUC 150 American Education: Past, Present, and Future3 Credits**

An honors course that includes an historical view of public and private education; current challenges; demographic, sociological, technological, and economic trends and their effects on education; educational reform; comparative education systems; and future directions for public and private schooling in America.

**EDUC 196 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**EDUC 215 Teaching as a Profession1 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. This is an on-campus course that is web-enhanced, meaning we meet face-to-face each week AND we have a web-based course site (D2L) to support the classroom environment. Please note: Students must earn a grade of A or B in this class if they desire to be admitted to the Teacher Education program.

**Prerequisites:** EDUC 115.

**EDUC 301 Emergent Literacy for Early Childhood3 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 Children3 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 years3 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/Elementary3 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-123 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 Diversity3 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: EC3 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.

**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 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 497 Content Methodology Practicum** 3 Credits

Theory and practice of differentiated instruction, lesson study design and implementation, and basic concepts of Understanding by Design. Introduction to comprehensive school reform 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, and completion of all content area courses.

**Corequisites:** EDUC 442 and EDUC 497A/EDUC 497B/EDUC 497C/EDUC 497D/or EDUC 497E as required by degree.

Course may be taken multiple times up to maximum of 15 credit hours.



**EDUC 497A Methods of Teaching Secondary English2 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.

**Corequisites:** EDUC 442 and EDUC 497, or EDUC 342 and EDUC 343.

**Terms Typically Offered:** Fall.

**EDUC 497B Methods of Teaching Secondary Social Sciences2 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.

**Corequisites:** EDUC 442 and EDUC 497, or EDUC 342 and EDUC 343.

**Terms Typically Offered:** Fall.

**EDUC 497C Methods of Teaching Secondary Mathematics2 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.

**Corequisites:** EDUC 442 and EDUC 497, or EDUC 342 and EDUC 343.

**Terms Typically Offered:** Fall.

**EDUC 497D Methods of Teaching Secondary Science2 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.

**Corequisites:** EDUC 442 and EDUC 497, or EDUC 342 and EDUC 343.

**Terms Typically Offered:** Fall.

**EDUC 497E Methods of Teaching Secondary Spanish2 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.

**Corequisites:** EDUC 442 and EDUC 497, or EDUC 342 and EDUC 343.

**Terms Typically Offered:** Fall.

**EDUC 499A Teaching Internship and Colloquia: K-26 Credits**

Full-time supervised teaching experience for eight weeks in an inclusive 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 K-2 students.

**Prerequisites:** All program and degree requirements must be successfully completed.

**EDUC 499B Teaching Internship and Colloquia: 3-66 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: Elementary12 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-126 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: Secondary12 Credits**

Full-time (40 hours 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 342, EDUC 343, EDUC 442, EDUC 497, and EDUC 497A, EDUC 497B, EDUC 497C, EDUC 497D, or EDUC 497E as appropriate for content area major; all other course work for bachelor's degree completed; 2.8 cumulative GPA, as well as 2.8 GPA in major and in 2.8 GPA in EDUC classes.

**EDUC 499H Teaching Internship and Colloquia: Secondary for K-126 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 Pedagogy3 Credits**

This course centers on 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, acceptance into M.A. program, GRE.

**EDUC 501 Educational Technology2 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. Students will create multimedia materials for incorporation into a final product. Critique of curriculum discourse, process, and product. Teachers' roles in site-based curriculum and staff development.

**EDUC 502 Theory, Design & Assessment of Curriculum3 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 Design3 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 504 Methods of Teaching English as a Second Language3 Credits**

Theory and practice of teaching English as a second language; techniques for teaching pronunciation, reading and writing in the context of communicative competence; analysis of resources available for ESL.

**EDUC 510 ESL Strategies/Content Areas3 Credits**

Strategies for assessing and teaching linguistically-diverse students in the content areas. Topics include role-playing, language dynamics, measurement, relevant research, and classroom practice.

**EDUC 521 Educational Foundations, Student Development, and Ethics3 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 535 Internship in ESOL: K-63 Credits**

This practicum applies theory and research to the analysis and synthesis of field experiences in ESOL. The practicum will be integrated into a concluding research project that structures students' reflections about their growth and vision as a leader. Through exploration of research and practicum methodology students will frame their capstone project proposals leading to final analysis and presentation following.

**Prerequisites:** Current teaching certificate, acceptance into M.A. program, GRE.

**EDUC 541 Exceptional Learners3 Credits**

Study of exceptionality and special education, legislation, individualized education programs (IEP), planning and delivering services, multicultural and bilingual aspects of special education, classifications (impairments), exceptionality and the family. 20-hour field experience required.

**EDUC 543 Inclusion Methods/Strategies3 Credits**

Collaboration, community and families, legal aspects of placement, classroom management, and methods and strategies used in inclusive classrooms. Each student is required to complete a minimum of 20 field experience hours.

**EDUC 545 Internship in ESOL: 7-123 Credits**

This practicum applies theory and research to the analysis and synthesis of field experiences in ESOL. The practicum will be integrated into a concluding research project that structures students' reflections about their growth and vision as a leader. Through exploration of research and practicum methodology students will frame their capstone project proposals leading to final analysis and presentation following.

**Prerequisites:** Current teaching certificate, acceptance into M.A. program, GRE.

**EDUC 554 Theories of Second Language Acquisition3 Credits**

Research on second language acquisition, differences between first and second language acquisition, application of theories to classroom practice.

**EDUC 555 Multicultural Narratives/K-123 Credits**

Survey of multicultural literature suitable for the K-12 classroom. Cultural awareness, diversity, developmentally-appropriate materials, book and media selection for bilingual and English-language learners in grades K-12.

**EDUC 556 Assessment in English as a Second Language3 Credits**

Assessment of linguistically-diverse students, developing instructional plans for linguistically-diverse students, measurement, relevant research, classroom practice, legal and social responsibilities.

**EDUC 562 Curriculum, Instruction, and Assessment6 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 Management1 Credit**

Applications of advanced classroom management techniques to help students become responsible for their behaviors and choices. Includes student motivation, positive student-teacher 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-63 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 Curriculum3 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 Arts2 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 Studies2 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 Mathematics2 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 Science2 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 Spanish2 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 Education3 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 Curriculum3 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-63 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 Needs3 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-63 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 Teaching0.5-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**EDUC 596 Topics in the Content Areas0.5-4 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**EDUC 599A ITL 3: Directed Teaching: Elementary Education9 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)

**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)

**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)

**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.

**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 Education3 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 Education3 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)

**EDEC 100A Parent Education and Infants1 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 Toddlers1 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 2 times for credit.

**EDEC 100C Parent Education and Early Preschool1 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 2 times for credit.

**EDEC 100D Parent Education and School Readiness1 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 2 times for credit.

**EDEC 101 Introduction to Early Childhood3 Credits**

Includes the eight key areas of professional knowledge: Child Growth and Development; Health, Nutrition, and Safety; Developmentally Appropriate Practices; Guidance; Family and Community Relationships; Diversity; Professionalism; Administration and Supervision. Overview of history and philosophy. Focuses on ages birth through age 8. Assignments require 3 hours of field experience and may include observation/participation in an early childhood setting.

**Fees:** Yes.

**EDEC 102 Introduction to Early Childhood Professions Lab Experiences3 Credits**

Field experience. Demonstrate knowledge of child growth and development, guidance techniques, planning and implementation of curriculum, assessment techniques and application of laws and standards. Supervised placement provides opportunity to observe, to practice appropriate interactions and to develop effective guidance and nurturing techniques. Addresses ages birth through 8. Assignments include a required field experience of 60 hours.

**Prerequisites:** EDEC 101.

**EDEC 103 Guidance Strategies3 Credits**

Explores guidance theories and techniques, real world applications, goals, and factors influencing expectations, classroom management issues. Techniques for prosocial skills, violence prevention, anger management and providing families with community resources discussed. Focus on birth through age 8. Assignments require 3 hours of field experience and may include observation/participation in an early childhood setting.

**EDEC 113 Infant and Toddler Theory and Practice3 Credits**

Introduction to children from birth through age 3. Includes the eight key areas of professional knowledge: Child Growth and Development; Health, Nutrition and Safety; Developmentally Appropriate Practices; Guidance; Family and Community Relationships; Diversity; Professionalism; Administration and Supervision. Overview of history and philosophy of early childhood education. Assignments require 3 hours of field experience and may include observation/participation in an early childhood setting.

**EDEC 114 Introduction to Infant/Toddler Lab Techniques3 Credits**

Field experience. Demonstrate knowledge of child growth and development, guidance techniques, planning and implementation of curriculum, assessment techniques, and application of laws and standards. Supervised placement provides opportunity to observe, to practice appropriate interactions and to develop effective guidance and nurturing techniques. Addresses ages birth through age 3 years. Assignments include a required field experience of 60 hours.

**Prerequisites:** EDEC 101 or EDEC 113.

**EDEC 122 Ethics in Early Childhood Education1 Credit**

Practical approach to recognizing, understanding, and resolving issues confronting professionals in education and business. Emphasizes historical development of ethics. Application of critical thinking and decision-making skills to ethical dilemmas in classroom, business, community and governmental settings. 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.

**EDEC 125 Science/Math and the Young Child3 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. Assignments require 3 hours of field experience and may include observation/participation in an early childhood setting.

**Terms Typically Offered:** Fall, Spring, Summer.

**EDEC 126 Art and the Young Child<sup>2</sup> 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. Assignments require 2 hours of field experience and may include observation/participation in an early childhood setting.

**Terms Typically Offered:** Fall, Spring, Summer.

**EDEC 127 Music/Movement for the Young Children<sup>1</sup> Credit**

Focus on 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. Assignments require 1 hour of field experience and may include observation/participation in an early childhood setting.

**Terms Typically Offered:** Fall, Spring, Summer.

**EDEC 195 Independent Study<sup>1-3</sup> Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**EDEC 196 Topics<sup>1-3</sup> Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**EDEC 200 Observation and Assessment in Early Childhood Education<sup>2</sup> Credits**

Developmentally appropriate observation and assessment strategies to document child development, play, and learning to support families and professionals in promoting children's success; and 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<sup>1</sup> Credit**

Supervised placement in licensed early childhood setting. 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<sup>3</sup> Credits**

Focus on 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.

**EDEC 230 Curriculum and Development: Infant/Toddler<sup>3</sup> Credits**

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.

**EDEC 237 Theories and Techniques of Social and Emotional Growth<sup>3</sup> Credits**

Incorporates 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.

**EDEC 238 Early Childhood Development 0-8 Years<sup>3</sup> Credits**

Theories, current research and developmental ages and stages of children, conception to 8 years. Emphasizes physical, cognitive, language, social and emotional domains, 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.

**EDEC 240 Curriculum and Development: Early Childhood<sup>3</sup> Credits**

Methods of creating and implementing curriculum based on understanding of developmentally appropriate practice for children, 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 or permission of instructor.

**EDEC 241 Early Childhood Administration: Human Relations<sup>3</sup> Credits**

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 field experience and may include observation/participation in an early childhood setting.

**EDEC 250 Exceptionalities in Early Education<sup>3</sup> Credits**

Presents an overview of critical elements related to educating young children who may have learning challenges and/or be advanced in the early childhood setting. Topics include the following: typical and atypical development, legal requirements, research based practices related to inclusion, teaming and collaboration, and accommodations and adaptations. Student will learn how different cognitive/social/physical abilities impact a young child's learning process. Includes conception to age 8. Assignments require 3 hours of field experience and may include observation/participation in an early childhood setting.

**Prerequisites:** EDEC 101 or permission of instructor.

**EDEC 256 Working with Parents, Families, and Community Systems<sup>3</sup> 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.

**EDEC 264 Administration in Early Education<sup>3</sup> 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 field experience and may include observation/participation in an early childhood setting.

**EDEC 290 Early Literacy for the Young Child<sup>2</sup> 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 field experience and may include observation/participation in an early childhood setting.

**EDEC 296 Topics<sup>1-3</sup> Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**EDEC 297 Practicum1-2 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.

Course may be taken multiple times up to maximum of 15 credit hours.

**EDEC 299 Student Teaching in Early Education3 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.

Course may be taken multiple times up to maximum of 6 credit hours.

## Educational Leadership (EDLD)

**EDLD 506 Leadership and Organizational Change3 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 Administration3 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 I2 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 II2 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 Administration3 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 I1 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 Accountability3 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/HR3 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 III1 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 Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

## Electric Lineworker (ELCL)

**ELCL 125 Job Training and Safety4 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.

**ELCL 131 Electrical Distribution Theory 14 Credits**

Pole setting techniques, framing methods and specifications, climbing, sagging and splicing of conductors, energizing and de-energizing of lines, and installation of protective grounds.

**ELCL 131L Electric Distribution Lab4 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.

**ELCL 132 Electrical Distribution Theory II4 Credits**

Installation and operation of protective equipment, transformer hookups, voltage regulation, hotstick maintenance, troubleshooting, and gloving from the pole. Four hours lecture, three hours laboratory per week.

**Prerequisites:** ELCL 131.

**Corequisites:** ELCL 132L.

**ELCL 132L Electrical Distribution Theory II Laboratory4 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.

**ELCL 137 Advanced Electrical Distribution2 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 Laboratory4 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.

**ELCL 140 Underground Procedures4 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 Hot Line Procedures1 Credit**

Two weeks of training by outside specialists covering current hotline maintenance and underground installation methods. Eight hours lecture, twenty-four hours laboratory per week.

**Corequisites:** ELCL 145L.

**ELCL 145L Hot Line Procedures Laboratory2 Credits**

Lab component required for ELCL 145.

**Corequisites:** ELCL 145.

**ELCL 195 Independent Study1 or 2 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**ELCL 196 Topics1 or 2 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**ELCL 199 Internship6 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)

**EECE 225 Introduction to Circuits and Electronics3 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 Laboratory1 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.

**EECE 226 Circuits as Systems3 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 Laboratory1 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.

**EECE 235 Digital Logic3 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 130.

**Terms Typically Offered:** Spring.



**EECE 237 Embedded Software Engineering3 Credits**

Introduction to the design of digital systems. Covers system software-hardware integration as well as hardware and software building blocks. Skills associated with software development and debugging will be developed. Uses modern electronic system design platforms, embedded and mobile computing platforms, and various programming languages.

**Prerequisites:** CSCI 130 or CSCI 111; and EECE 235 (may be taken concurrently).

**Terms Typically Offered:** Fall.

**EECE 244 Applications of Embedded Systems3 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.

**EECE 396 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**EECE 496 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

## Electrical Construction (ELCE)

**ELCE 102 Electrical Blueprint Reading4 Credits**

Development of skills needed to interpret electrical drawings properly. Critical for anyone involved in the design, construction, or maintenance of electrical systems.

**ELCE 110 House Wiring4 Credits**

Approaches to residential building wiring in conformance with the current National Electrical Code and local codes using non-metallic cable.

**ELCE 120 Commercial Wiring4 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.

**ELCE 124 Electrical Safety1 Credit**

Exploration of OSHA's electrical safety-related work practices, and how they are applied to the work environment.

**ELCE 130 National Electrical Code I4 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.

**ELCE 135 National Electrical Code II4 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 Bonding1 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.

**ELCE 150 DC Circuit Fundamentals4 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 107 or higher (may be taken concurrently).

**Terms Typically Offered:** Fall.

**ELCE 155 AC Circuit Fundamentals4 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:** Fall.

**ELCE 167 Electrical Maintenance4 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.

**ELCE 220 Industrial Controls4 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.

**ELCE 222 Instrumentation and Process4 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.

**ELCE 225 Introduction to PLCs4 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.

**ELCE 229 AC/DC Variable Speed Drive2 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.

**ELCE 263 Specific Wiring for Structured Cabling Systems2 Credits**

Development of ability to wire for specifications and for structured cabling systems. Examines the job layout, products used, and execution of the project.

**ELCE 295 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

## Emergency Management (EMDP)

### EMDP 211 Introduction to Emergency Management3 Credits

Introduction to the complex and evolving field of emergency management. Understanding of key stakeholders, principles, and activities involved in an all-hazards, all-phases approach to dealing with disasters developed.

**Prerequisites:** Permission of instructor.

### EMDP 295 Independent Study1-3 Credits

Course may be taken multiple times up to maximum of 6 credit hours.

### EMDP 321 Hazard Preparedness and Mitigation3 Credits

Examination of methods and application of practices in preparing for and mitigating against hazards. Includes developing an understanding of risk and vulnerability, and their relationship with public policy and implementation actions relevant to hazard preparedness and mitigation.

**Prerequisites:** EMDP 211.

### EMDP 331 Disaster Response and Recovery3 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.

### EMDP 395 Independent Study1-3 Credits

Course may be taken multiple times up to maximum of 6 credit hours.

## Emergency Medical Tech (EMTS)

### EMTS 101 Emergency Medical Technician - Basic I3 Credits

Policies, rules and regulations of emergency medical services. Basic anatomy and physiology. Initial and focused assessment of patient in the field.

**Corequisites:** EMTS 102 and EMTS 103.

### EMTS 102 Emergency Medical Technician - Basic II3 Credits

Management of respiratory, cardiac, CNS, endocrine, behavioral, drug, alcohol, allergy and anaphylaxis emergencies. Airway management, CPR, AED and basic pharmacology.

**Corequisites:** EMTS 101 and EMTS 103.

### EMTS 103 Emergency Medical Technician - Basic III4 Credits

Management of MOI, head, spinal, abdominal, chest and extremity trauma. Basic management of pediatric, gynecologic, and geriatric emergencies. EMT safety, environmental emergencies, hazmat, triage, and incident command. Preparation for national registry written and practical examination.

**Corequisites:** EMTS 101 and EMTS 102.

### EMTS 115 Emergency Medical Responder3 Credits

This course covers the knowledge and skills to provide emergency care for most medical emergencies. Emergency Medical Responders provide immediate care as part of the EMS system while awaiting additional EMS response and transportation. This course meets the requirements to become nationally certified as an NREMR - National Registered Emergency Medical Responder.

### EMTS 130 Emergency Medical Technician - Basic IV Therapy2 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.

### EMTS 190 Emergency Medical Technician - Basic EKG Interpretation2 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 Practice3 Credits

First course of the National Standard Paramedic Curriculum as approved by the Colorado State Department of Health and Environment.

**Corequisites:** EMTS 225L.

### EMTS 225L Fundamentals of Paramedic Practice Laboratory2 Credits

Hands-on application of patient assessment, IV therapy and EKG interpretation. Practical application and mastery of anatomy and physiology principles within a pre-hospital setting will be developed.

**Prerequisites:** Permission of instructor.

**Corequisites:** EMTS 225.

### EMTS 227 Paramedic Special Considerations3 Credits

Focuses on a comprehensive study of Advanced Life Support Practice.

**Prerequisites:** EMTS 225/EMTS 225L and Permission of instructor.

**Corequisites:** EMTS 227L.

### EMTS 227L Paramedic Special Considerations Laboratory2 Credits

Hands-on application of skills in pediatric assessment, delivery and management of the newborn, the mother, and geriatric patients.

Management of live scenarios simulating patients with special considerations and needs will enhance the development of practical patient care skills and improve patient outcomes. Certification in PEPP and PALS will be completed.

**Prerequisites:** EMTS 225/EMTS 225L and Permission of instructor.

**Corequisites:** EMTS 227.

### EMTS 229 Paramedic Pharmacology3 Credits

Focuses on a comprehensive study of emergency pharmacology and medications used to treat common illnesses.

**Prerequisites:** EMTS 225/EMTS 225L and Permission of instructor.

**Corequisites:** EMTS 229L.

### EMTS 229L Paramedic Pharmacology Laboratory2 Credits

Hands-on administration of medications with an advanced level of understanding of their effects to the human body. The principles of pharmacokinetics and pharmacodynamics are investigated.

**Prerequisites:** EMTS 225/EMTS 225L and Permission of instructor.

**Corequisites:** EMTS 229.

### EMTS 231 Paramedic Cardiology5 Credits

Cardiology topics as presented in the National Standard Curriculum for paramedics.

**Prerequisites:** EMTS 225/EMTS 225L and Permission of instructor.

**Corequisites:** EMTS 231L.

### EMTS 231L Paramedic Cardiology Laboratory1 Credit

Hands-on application of principles of cardiac care for the pre-hospital and in-hospital environment. Students will earn their ACLS certification.

**Prerequisites:** EMTS 225/EMTS 225L and Permission of instructor.

**Corequisites:** EMTS 231.

### EMTS 233 Paramedic Medical Emergencies4 Credits

A comprehensive study of adult medical emergencies.

**Prerequisites:** EMTS 225/EMTS 225L and Permission of instructor.

**Corequisites:** EMTS 233L.

**EMTS 233L Paramedic Medical Emergencies Laboratory1 Credit**

Hands-on application of the principles of endocrine emergencies, BG analysis, respiratory emergencies, and other medical emergencies for the pre-hospital and in-hospital environment. Students will receive AMLS certification.

**Prerequisites:** EMTS 225/EMTS 225L and Permission of instructor.

**Corequisites:** EMTS 233.

**EMTS 235 Paramedic Trauma Emergencies4 Credits**

A comprehensive study of adult and pediatric trauma emergencies.

**Prerequisites:** EMTS 225/EMTS 225L and Permission of instructor.

**Corequisites:** EMTS 235L.

**EMTS 235L Paramedic Trauma Emergencies Laboratory1 Credit**

Hands-on application of the principles to manage and assess the trauma patient in pre-hospital emergencies. Approaches on how to handle the patient with blast injuries and disaster management of multiple patients will be developed. Specific scenarios with various acute trauma emergencies will be developed to assist the student with patient assessment skills.

**Prerequisites:** EMTS 225/EMTS 225L and Permission of instructor.

**Corequisites:** EMTS 235.

**EMTS 237 Paramedic Internship Preparation2 Credits**

Reviews concepts and techniques used in the prehospital setting.

**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.

**EMTS 280 Paramedic Internship I6 Credits**

The preceptor/internship program for paramedic students.

**Prerequisites:** EMTS 237.

**EMTS 281 Paramedic Internship II6 Credits**

Continuation of EMTS 280, preceptor program for paramedic students.

**Prerequisites:** EMTS 280.

## Energy Management (EMGT)

**EMGT 101 Energy Management Fundamentals3 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 Fundamentals3 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 Fundamentals3 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 Markets3 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-Engineering3 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 Law3 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 Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**EMGT 410 Energy Regulation and Compliance3 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 I3 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 II3 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 Seminar3 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 Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**EMGT 496 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**EMGT 499 Internship1-9 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

## Engineering (ENGR)

**ENGR 101 Introduction to Engineering1 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 Fabrication3 Credits**

Introduces engineering design graphics. Includes learning a contemporary computer-aided design (CAD) software application and relevant engineering graphics concepts, such as orthographic projection, sections, engineering drawing practices, geometric dimensioning and tolerancing, and an introduction to manufacturing methods. Entails a final design project using rapid prototyping.

**ENGR 140 First-Year Engineering Project3 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 Science2 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 Laboratory1 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.

**ENGR 225 Introduction to Manufacturing3 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 additive processes for metals, plastics, ceramics, and composites.

**Prerequisites:** ENGR 224.

**Fees:** Yes.

**ENGR 261 Statics and Structures3 Credits**

Covers statics of particles, equivalent force systems, rigid bodies, equilibrium of rigid bodies in two and three dimensions, analysis of truss and frame structures, uniaxially-loaded members, deformation and stress, distributed force systems, friction. Lectures and homework assignments involve computer work and hands-on laboratory work documented by written reports.

**Prerequisites:** MATH 136 or MATH 152, and PHYS 131/PHYS 131L.

**ENGR 263 Mechanics of Solids3 Credits**

Covers shear force and bending moment, torsion, stresses in beams, deflection of beams, matrix analysis of frame structures, analysis of stress and strain in 2-D and 3-D (field equations, transformations), energy methods, stress concentrations, and columns. Lectures and homework assignments involve computer work and hands-on laboratory work documented by written reports.

**Prerequisites:** ENGR 261.

**ENGR 305 Engineering Economics & Ethics2 Credits**

Applications of economics, statistics, 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 101; ENGR 140; and MATH 135 or MATH 151.

**ENGR 312 Engineering Thermodynamics3 Credits**

An introductory course in thermodynamics, the science of heat energy conversion. Develops understanding of energy, heat, work, efficiency, and ideal thermodynamic cycles. Teaches first and second laws of thermodynamics and perfect gas law.

**Prerequisites:** MATH 136 or MATH 152, and PHYS 131/PHYS 131L.

**ENGR 317 Fundamentals of Circuits and Electronics2 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.

**ENGR 317L Fundamentals of Circuits and Electronics Laboratory1 Credit**

Lab component required for ENGR 317.

**Prerequisites:** MATH 136 or MATH 152, and PHYS 131/PHYS 131L.

**Corequisites:** ENGR 317.

**ENGR 321 Fluid Mechanics3 Credits**

Covers fluid properties, laws of fluid statics and fluid dynamics, measurement of flow, viscous flow, laminar and turbulent flow, flow in ducts, forces due to fluid motion, and fluid machinery.

**Prerequisites:** MATH 152 or MATH 136; PHYS 131/PHYS 131L, and ENGR 261.

**Terms Typically Offered:** Fall.

**ENGR 325 Component Design3 Credits**

Knowledge and skills developed in preceding courses are extended and applied to design and selection of machine elements and machines.

Attention is given to functional requirements, methods of manufacture, choice of materials and economic factors.

**Prerequisites:** ENGR 224 and ENGR 263.

**ENGR 329 Bicycle Design and Frame-Building3 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 Principles3 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 Power3 Credits**

Discussion of major modes of heat transfer. Includes steady and transient conduction, internal and external convection, and radiation with emphasis on industrial applications. Heat exchanger and boiler analysis and related codes and standards discussed.

**Prerequisites:** ENGR 312 and ENGR 321.

**ENGR 343 Dynamics3 Credits**

Kinematics of particles and rigid bodies. Kinetics of particles and rigid bodies in plane motion, including Newton's second law, work and energy, impulse and momentum.

**Prerequisites:** ENGR 261.

**ENGR 345 Engineering Integration I3 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. Team project work on "design-and-build" projects will require manufacture of mechanical systems and/or electronic circuits.

**Prerequisites:** ENGR 224, ENGR 263, MAMT 106, and CSCI 130.

**ENGR 353 Exploring Entrepreneur Opportunities3 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 II3 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. Team project work on "design-and-build" projects will require manufacture of mechanical systems and/or electronic circuits.

**Prerequisites:** ENGR 345.

**ENGR 395 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**ENGR 396 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**ENGR 397 Structured Research1-3 Credits****ENGR 399 Internship1-12 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**ENGR 401 Professionalism Seminar1 Credit**

Preparation for a career in the engineering profession. Topics in professionalism, ethics, resume building, innovation, internships, and current engineering issues explored.

**Prerequisites:** Junior standing or higher.

**ENGR 425 Advanced Manufacturing3 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.

**ENGR 426 Manufacturing Processes and Systems3 Credits**

A senior level course that examines widely used manufacturing processes for metals, polymers, microelectronics and also exposes students to principles and practices of world class manufacturing. Lecture topics include material properties; engineering materials; casting, molding and related processes; metal forming and sheet metal working; material removal processes; joining and assembly processes; electronics manufacturing technology; and principles and practices of world class manufacturing. Manufacturing economic considerations. Influence of product design on process selection.

**Prerequisites:** ENGR 224 and STAT 200.

**ENGR 427 Engineering Measurements2 Credits**

Methods of experimentation and data analysis. Specific skills used in planning an experiment, applying sound procedures, keeping proper records, and communicating results orally, with posters and in written reports developed.

**Prerequisites:** ENGL 325, ENGR 263, ENGR 317, and STAT 305.

**ENGR 435 Industrial Controls3 Credits**

Fundamentals of control of manufacturing processes. Applications of relay logic, input/output devices, and programmable logic controllers (PLC). Design of complete control circuits, selection of components, and cost estimation. PLC programming for discrete event control and for analog applications.

**Prerequisites:** ENGR 317.

**ENGR 436 Fluid & Electric Power Systems3 Credits**

A mechanical approach to industrial power systems. Applications emphasize the selection and function of hardware and interfacing of hydraulic, pneumatic and electric systems with mechanical, fluidic and electrical/electronic controls. Topics covered include transformers, motors, generators, motor controls, and protective devices.

**Prerequisites:** ENGR 321 and ENGR 435.

**ENGR 445 MET Design Project I3 Credits**

First of a two-course comprehensive group capstone design experience, focusing on the design proposal. This sequence applies material from prior course work, along with concepts of project management, problem definition; determining design requirements, design optimization, engineering analysis, proof-of-concept prototype, CAD drawings.

**Prerequisites:** ENGR 140, ENGR 225, ENGR 312, ENGR 321, ENGR 325, ENGR 385, MAMT 102, and ENGL 325.

**Terms Typically Offered:** Fall.

**ENGR 446 Writing for Design Projects1 Credit**

Communication of professional writing to the technical and non-technical audience. Skills are developed to analyze rhetorical situations and compose documents that achieve a specific purpose and meet the needs of a particular audience. Writing with clarity, conciseness and correctness will be emphasized.

**Corequisites:** ENGR 485.

**ENGR 455 Fluid Power Systems3 Credits**

Coverage of the fundamentals of hydraulic and pneumatic systems and their components, fluid power circuit design, analysis, and troubleshooting for industrial applications, introduction to electro-pneumatics.

**Prerequisites:** ENGR 321.

**ENGR 460 Energy Systems3 Credits**

Discussion of conventional, alternative and renewable energy systems, such as wind, solar, clean coal, and geothermal. Challenging energy problems relevant to the industry presented and analyzed.

**Prerequisites:** ENGR 312 and ENGR 321.

**ENGR 465 Electric Power Systems3 Credits**

Basic understanding of electric power systems; generation, transmission, distribution and consumption. Review of AC circuit analysis in single and three phase systems using time domain and phasor representation.

Includes magnetic circuits, transformers and renewable energy generation from photovoltaic cells. Introduces electromechanical energy conversion from experiments with induction and synchronous motors/generators, and includes photovoltaic panels.

**Prerequisites:** ENGR 317.

**ENGR 481 Thermal-Fluid Systems Analysis Using CFD3 Credits**

Presentation of advanced computer simulation tools for analysis of thermal-fluid problems (fluid mechanics, thermodynamics, and heat transfer). Fundamentals of CFD (computational fluid dynamics) such as grid generation, solution techniques and convergence, modeling and simulation, and analysis of results for representative industrial problems discussed.

**Prerequisites:** CSCI 130 and ENGR 336.

**ENGR 485 MET Design Project II 3 Credits**

Second part of a two-course capstone design experience. Refinement of prototype, design optimization, fabrication, testing and evaluation. Students orally present the final design, prepare a written report and operation manual for the product.

**Prerequisites:** ENGR 445.

**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.

**ENGR 497 Structured Research 1-3 Credits**

Engineering research under the direct guidance of a faculty member. Designed for junior and senior level students.

**Prerequisites:** Permission of instructor.

## English (ENGL)

**ENGL 111 English Composition I-GTC013 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**

**ENGL 112 English Composition II-GTC023 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**

**ENGL 131 Western World Literature I-GTAH23 Credits**

Works from the Classical, Medieval, and Renaissance periods.

**Essential Learning Categories:** Humanities

**Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum**

**ENGL 132 Western World Literature II-GTAH23 Credits**

Works from the late Renaissance, Neoclassic, Romantic, and Modern periods.

**Essential Learning Categories:** Humanities

**Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum**

**ENGL 150 Introduction to Literature-GTAH23 Credits**

Study of major genres of literature.

**Essential Learning Categories:** Humanities

**Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum**

**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.

**ENGL 219 Introduction to Professional Writing-GTC033 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**

**ENGL 222 Mythology-GTAH23 Credits**

Basic myths of the Greeks and Romans, 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**

**ENGL 231 Non-Western World Literature I-GTAH23 Credits**

Literature from cultures outside the Western tradition, from antiquity to approximately 1800. Texts, chosen by instructor, may include works from China, Japan, India, the Middle East, etc.

**Essential Learning Categories:** Humanities

**Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum**

**ENGL 232 Non-Western World Literature II-GTAH23 Credits**

Nineteenth and twentieth century literature from Eastern, Indian, African, Asian and Latin American tradition.

**Essential Learning Categories:** Humanities

**Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum**

**ENGL 240 Children's Literature 3 Credits**

Survey of literature for children from birth to age 12, focusing on ways of reading texts.

**ENGL 245 Imaginative Writing 3 Credits**

Introduction to the theory and practice of imaginative writing for young people.

**Prerequisites:** ENGL 111.

**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.

**ENGL 254 Survey of English Literature I-GTAH23 Credits**

English literature from its beginnings through the Enlightenment.

**Essential Learning Categories:** Humanities

**Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum**

**ENGL 255 Survey of English Literature II-GTAH23 Credits**

English literature from the Romantics to the present day.

**Essential Learning Categories:** Humanities

**Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum**

**ENGL 261 Survey of American Literature I-GTAH23 Credits**

American literature from the beginnings to the late 19th Century.

**Essential Learning Categories:** Humanities

**Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum**

**ENGL 262 Survey of American Literature II-GTAH23 Credits**

American literature from the late 19th Century to the present.

**Essential Learning Categories:** Humanities

**Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum**

**ENGL 296 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**ENGL 301 Classical Greek and Latin Literature3 Credits**

Readings in English of Greek and Roman authors and major classical genres.

**Prerequisites:** ENGL 112.

**ENGL 311 English Medieval Literature3 Credits**

Major works of Old and Middle English literature.

**Prerequisites:** ENGL 112.

**ENGL 313 English Renaissance Literature3 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 18303 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 1830-18703 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 1870-19003 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 Writing3 Credits**

Introduction to the theory and practice of preparing and analyzing reports and proposals intended for businesses, governmental agencies, private and corporate foundations.

**Prerequisites:** ENGL 112.

**ENGL 325 Writing for Engineers3 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.

**ENGL 330 Women in World Thought and Literature3 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 Literature3 Credits**

A 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.

**ENGL 343 Language Systems and Linguistic Diversity3 Credits**

Introduction to the nature of language, first and second language acquisition, and issues relevant to linguistic diversity and multicultural literacies.

**Prerequisites:** ENGL 112.

**ENGL 355 Shakespeare3 Credits**

Early and mature plays, including genres of comedy, history, tragedy, and romance, emphasizing close textual reading in conjunction with cultural and intellectual contexts.

**Prerequisites:** ENGL 112.

**ENGL 365 Literature for Young Adults3 Credits**

Advanced study of major works for youth and adolescents throughout history, with an emphasis on contemporary authors.

**Prerequisites:** ENGL 112.

**ENGL 370 Major Author3 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-Fiction3 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: Fiction3 Credits**

Theory and practice of producing original works of fiction.

**Prerequisites:** ENGL 250 or permission of instructor.

**ENGL 382 Creative Writing: Crafting Fiction3 Credits**

In-depth focus on a specialized aspect of fiction writing.

**Prerequisites:** ENGL 250 or permission of instructor.

**ENGL 383 Creative Writing: Poetry3 Credits**

Theory and practice of producing original works of poetry.

**Prerequisites:** ENGL 250 or permission of instructor.

**ENGL 384 The Art of the Essay3 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 Writing3 Credits**

Practice in writing and editing of workplace documents, including correspondence, reports and proposals.

**Prerequisites:** ENGL 112.

**ENGL 386 Roots of Modern Rhetoric3 Credits**

A survey of the history of rhetoric from classical Greece to the present with emphasis on the Greco-Roman tradition.

**Prerequisites:** ENGL 112.

**ENGL 387 Literary Editing and Publishing3 Credits**

Practical experience in literary editing and publishing one of Colorado Mesa University's journals.

**Prerequisites:** ENGL 250 or permission of instructor.

**ENGL 388 Creative Writing: Crafting Poetry3 Credits**

In-depth focus on a specialized aspect of poetry writing.

**Prerequisites:** ENGL 250 or permission of instructor.

**ENGL 389 Screenwriting3 Credits**

Theory and practice of producing original screenplays.

**Prerequisites:** ENGL 250 or ENGL 390.

**Terms Typically Offered:** Fall.

**ENGL 390 Introduction to Film Studies3 Credits**

Introduction to film narrative, cinematography, and theory.

**Prerequisites:** ENGL 112.

**ENGL 392 Introduction to Copy Editing3 Credits**

Approaches to editing principles 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:** Spring.

**ENGL 394 Technical and Professional Writing Topics3 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 Study1-4 Credits**

**Prerequisites:** ENGL 112.

Course may be taken multiple times up to maximum of 6 credit hours.

**ENGL 396 Topics1-3 Credits**

**Prerequisites:** ENGL 112.

Course may be taken multiple times up to maximum of 15 credit hours.

**ENGL 397 Practicum3 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 Publishing1-3 Credits**

Experience in editing and publishing one of Colorado Mesa University's journals. Credit hours contracted through advising instructor.

**Prerequisites:** ENGL 112.

Course may be taken multiple times up to maximum of 9 credit hours.

**ENGL 401 Studies in American Literature I3 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 II3 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 I3 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 II3 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 Folklore3 Credits**

Explores folk expressions of values, beliefs, traditions, attitudes, and worldviews.

**Prerequisites:** ENGL 112.

**ENGL 421 Introduction to Literary Theory and Criticism3 Credits**

Development and theory of literary criticism.

**Prerequisites:** ENGL 210.

**ENGL 423 Genre Studies3 Credits**

History and development of an individual literary genre.

**Prerequisites:** ENGL 112.

**ENGL 425 Scientific Writing3 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.

**ENGL 427 Writing for Industry3 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 1900-19453 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-Present3 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. Literature3 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 Language3 Credits**

Historical development of the English language; its internal formation as shaped by external political, social, and intellectual forces.

**Prerequisites:** ENGL 112 and junior standing, or permission of instructor.

**ENGL 444 Studies in Identity3 Credits**

Analysis of identity construction in literary and cultural texts.

**Prerequisites:** ENGL 112.

**Terms Typically Offered:** Fall.

**ENGL 451 Understanding and Using English Grammar3 Credits**

The art of using English grammar effectively for written and spoken communication.

**Prerequisites:** ENGL 112 and junior standing, or permission of the instructor.

**ENGL 470 18th Century British Literature3 Credits**

Conceptual framework of the Enlightenment in England's representative writers.

**Prerequisites:** ENGL 112.



**ENGL 471 British Romanticism3 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 Literature3 Credits**

Representative works of post-Romantic British literature.

**Prerequisites:** ENGL 112.

**ENGL 478 20th Century British Literature3 Credits**

Major works from 20th Century British writers.

**Prerequisites:** ENGL 112.

**ENGL 491 Composition Theory and Practice3 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 or permission of instructor.

**ENGL 492 Seminar in Writing3 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, or permission of instructor.

**ENGL 494 Seminar in Literature3 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 Study1-4 Credits**

**Prerequisites:** ENGL 112.

Course may be taken multiple times up to maximum of 6 credit hours.

**ENGL 496 Topics1-3 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 Communication3 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 Internship1-12 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**ENGL 521 Seminar in Literary Theory3 Credits**

Study of the content and application of literary theoretical frameworks.

**ENGL 543 Language Systems and Linguistic Diversity3 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:** Bachelor's degree.

**ENGL 550 Studies in Creative Writing3 Credits**

Studies in the history, development, theory, and practice of creative writing with an emphasis on understanding genre.

**ENGL 554 Topics in British and Commonwealth Literature3 Credits**

Analysis of an important British or Commonwealth literary work or works requiring students to interpret, criticize, and present research.

**ENGL 561 Topics in American Literature3 Credits**

Analysis of an important American literary work or works requiring students to interpret, criticize, and present research.

**ENGL 586 Seminar in Rhetoric and Composition3 Credits**

Theory and practice of rhetoric and composition including historical contexts, contemporary theories and current pedagogy.

**ENGL 596 Topics1-3 Credits**

**Prerequisites:** Bachelor's degree.

Course may be taken multiple times up to maximum of 15 credit hours.

## English-Basic Writing (ENGC)

**ENGC 090 College Preparatory Reading and Composition3 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 Studio1 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 Essentials2 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)

**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 Entrepreneurship3 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 Businesses3 Credits**

Overview of basic accounting and finance concepts for non-business majors owning or employed by small business/entrepreneurial ventures.

**ENTR 343 Exploring Entrepreneur Opportunities3 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 Mindset3 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 Study1-3 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 Finance3 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 Entrepreneurship3 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 Internship1-6 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**ENTR 550 Entrepreneurship3 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)

**ENVS 101 Introduction to Environmental Science-GTSC23 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. Students may take either ENVS 101 or ENVS 103/ENVS 103L for essential learning natural science credit, but not both.

**Essential Learning Categories:** Natural Sciences

**Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum**

**ENVS 103 Field-Based Introduction to Environmental Science-GTSC13 Credits**

Examination of the effects of resource use and pollution on the earth's environment and biota. Integration of lecture with field and lab exercises to demonstrate scientific approach to solving environmental problems. Emphasis on environmental awareness and critical thinking. Students may take either ENVS 101 or ENVS 103/ENVS 103L for essential learning natural science credit, but not both.

**Corequisites:** ENVS 103L.

**Essential Learning Categories:** Natural Science with lab - Both the lab and lecture must be completed

**Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum**

**ENVS 103L Field-Based Introduction to Environmental Science Laboratory-GTSC11 Credit**

Lab component required for ENVS 103.

**Corequisites:** ENVS 103.

**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.

**ENVS 104 Environmental Science: Global Sustainability3 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 or permission of instructor. Will not count as credit to the major if credit has already been received for ENVS 101 or ENVS 103.

**ENVS 105 Readings in Environmental Science1 Credit**

Critical readings in environmental science. Majors in Environmental Science and Technology only. ENVS 101 and 105 together are a substitute for ENVS 104.

**Prerequisites:** ENVS 101.

**ENVS 150 Introduction to Environmental Field Studies1-3 Credits**

Techniques for common field measurements in environmental science. Basic interpretation and statistical analysis of data. Human effects on natural systems.

**ENVS 196 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**ENVS 204 Introduction to Ecosystem Management3 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 104 or permission of instructor.

**Corequisites:** ENVS 204L.

**ENVS 204L Introduction to Ecosystem Management Laboratory1 Credit**

Lab component required for ENVS 204.

**Prerequisites:** ENVS 104 or permission of instructor.

**Corequisites:** ENVS 204.

**Fees:** Yes.

**ENVS 212 Environmental Health and Safety2 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 Control3 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 Laboratory1 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 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**ENVS 301 Environmental Project Management2 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 312 Soil Science and Sustainability3 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 Laboratory1 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 Rehabilitation2 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 321 Environmental Risk Analysis3 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 Quality3 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 Laboratory1 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 Biomonitoring2 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 331/ENVS 331L.

**ENVS 340 Applied Atmospheric Science3 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 Grasslands3 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 Laboratory1 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 Management3 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 Ecology3 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 Laboratory1 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 Energy3 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 Adaptation3 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 Building3 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 Technology3 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 Science3 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.

**ENVS 378 Permaculture Design3 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 Laboratory1 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 West1 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 Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**ENVS 396 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**Fees:** Yes.

**ENVS 396L Topics:1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**ENVS 410 Environmental Regulatory Compliance3 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 Contaminants3 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 146, or MATH 151.

**ENVS 420 Pollution Investigation & Monitoring3 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 Laboratory1 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 Treatment3 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 Systems3 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 Ecology3 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 Laboratory1 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 Management3 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 Laboratory1 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 Science3 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 Technology3 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 Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**ENVS 496 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**ENVS 497 Structured Research1-3 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 Internship1-4 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 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

## Essential Learning (ESSL)

**ESSL 200 Essential Speech1 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, at least 45 credit hours completed.

**Corequisites:** ESSL 290.

**ESSL 290 Maverick Milestone3 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)

### **FINA 300 Personal Finance1 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 Finance3 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 Management3 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 Investments3 Credits**

Introduction to the theory and practices of investment valuation and management. 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.

### **FINA 395 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

### **FINA 396 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

### **FINA 412 Life and Health Insurance Licensure and Financial Planning3 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 Licensure3 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 Management3 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 Management3 Credits**

The theory and practices of financial management in an international product and capital marketplace. Topics include the 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, multinational capital budgeting, multinational costs of capital, and multinational capital structure.

**Prerequisites:** FINA 301.

### **FINA 451 Financial Management: Theory and Applications3 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; senior standing or permission of instructor.

### **FINA 495 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

### **FINA 496 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

### **FINA 500 Financial Strategy3 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)

### **FINE 101 The Living Arts-GTAH13 Credits**

An 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**

### **FINE 395 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

### **FINE 396 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

### **FINE 495 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

### **FINE 496 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

### **FINE 499 Internship8 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)

### **FSTR 100 Fire Fighter I9 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 II3 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 Suppression3 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 Combustion3 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.

**FSTR 105 Building Construction for Fire Protection3 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 Prevention3 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.

**FSTR 107 Hazardous Materials Operations Level I3 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 Fire3 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-Operator3 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.

**FSTR 201 Instructional Methodology3 Credits**

Roles and responsibilities of the fire service instructor. Includes oral communication skills, concepts of learning, planning and development of lesson plans and 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.

**Prerequisites:** FSTR 100, FSTR 102, and FSTR 107.

**Terms Typically Offered:** Fall, Spring.

**FSTR 202 Strategy and Tactics3 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.

**FSTR 203 Fire Hydraulics and Water Supply3 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 Enforcement3 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 I3 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 Leadership3 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 Systems3 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.

**FSTR 252 Fire Investigation II3 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)

**FLSL 111 American Sign Language I3 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.

**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.

**FLSL 296 Topics 1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

## Foreign Language-French (FLAF)

**FLAF 111 First-Year French I 3 Credits**

Introduction to the French language and culture.

**FLAF 112 First-Year French II 3 Credits**

Introduction to the French language and culture.

**FLAF 211 Second-Year French I 3 Credits**

Grammar review, vocabulary distinction, and readings in the French language.

**Prerequisites:** Two years of high school French, FLAF 111 and FLAF 112, or permission of instructor.

**FLAF 212 Second-Year French II 3 Credits**

Grammar review, vocabulary distinction, and readings in the French language.

**Prerequisites:** Two years of high school French, FLAF 111 and FLAF 112, or permission of instructor.

**FLAF 290 Special Studies In French 1-3 Credits**

Study beyond the scope of the existing curriculum.

**FLAF 295 Independent Study 1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

## Foreign Language-German (FLAG)

**FLAG 111 First-Year German I 3 Credits**

Introduction to the German language.

**FLAG 112 First-Year German II 3 Credits**

Introduction to the German language.

**FLAG 211 Second-Year German I 3 Credits**

Grammar review, vocabulary distinction, and readings in the German language.

**Prerequisites:** Two years of high school German, FLAG 111 and FLAG 112, or permission of instructor.

**FLAG 212 Second-Year German II 3 Credits**

Grammar review, vocabulary distinction, and readings in the German language.

**Prerequisites:** Two years of high school German, FLAG 111 and FLAG 112, or permission of instructor.

**FLAG 290 Special Studies In German 1-3 Credits**

Study beyond the scope of the existing curriculum.

## Foreign Language-Greek (FLGK)

**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.

**FLGK 112 Introductory Greek II 3 Credits**

Introduction to 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.

**FLGK 395 Independent Study 1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

## Foreign Language-Italian (FLAI)

**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)

**FLAJ 111 Beginning Japanese I 3 Credits**

Basic competency in understanding, speaking, reading, and writing Japanese. Beginning familiarity with Japanese culture.

**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.

## Foreign Language-Latin (FLLT)

**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.

**FLLT 112 Introductory Latin II 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.

**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)

**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 II3 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)

**FLAV 196 Topics:1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**FLAV 290 Special Studies in Foreign Languages1-6 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 290A Ancient Greek Begin I3 Credits****FLAV 290B Ancient Greek Begin II3 Credits****FLAV 290C Mandarin Beginning I3 Credits****FLAV 290D Mandarin Beginning II3 Credits****FLAV 290E Japanese Beginning I3 Credits****FLAV 290F Beginning Japanese II3 Credits****FLAV 290G Intermediate Japanese I3 Credits****FLAV 290H Intermediate Japanese II3 Credits****FLAV 290I Hebrew Beginning I3 Credits****FLAV 290J Hebrew Beginning II3 Credits****FLAV 290K Italian Beginning I3 Credits****FLAV 290M Italian Beginning II3 Credits****FLAV 290N Latin Beginning I3 Credits****FLAV 290P Latin Beginning II3 Credits****FLAV 290S Russian Beginning I3 Credits****FLAV 290T Russian Beginning II3 Credits****FLAV 295 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**FLAV 296 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**FLAV 390 Special Studies in Foreign Languages1-3 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 I3 Credits****FLAV 390H French Intermediate II3 Credits****FLAV 390S Russian Intermediate I3 Credits****FLAV 390T Russian Intermediate II3 Credits****FLAV 390U French Advanced3 Credits****FLAV 390V German Advanced3 Credits****FLAV 390W Spanish Advanced3 Credits****FLAV 395 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**FLAV 396 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**FLAV 495 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**FLAV 496 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

## Foreign Language-Russian (FLAR)

**FLAR 111 First-Year Russian I3 Credits**

Introduction to Russian. Basic competency in understanding, speaking, reading, and writing Russian.

**Terms Typically Offered:** Fall.

**FLAR 112 First-Year Russian II3 Credits**

Continued work on basic competency in Russian. Increasing familiarity with Russian culture.

**Prerequisites:** FLAR 111.

**Terms Typically Offered:** Spring.

## Foreign Language-Spanish (FLAS)

**FLAS 111 First-Year Spanish I3 Credits**

Basic Spanish language skills. Introduction to greetings, classroom and family vocabularies in the present and present progressive tenses. Hispanic cultural and social interactions.

**FLAS 112 First-Year Spanish II3 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 or permission of instructor.

**FLAS 114 Conversational Spanish I3 Credits**

A beginning level class for adult students who wish to develop a basic vocabulary for speaking and understanding Spanish socially, on the job or south of the border.

**FLAS 115 Conversational Spanish II3 Credits**

A beginning level class for adult students who wish to develop a basic vocabulary for speaking and understanding Spanish socially, on the job or south of the border.

**FLAS 118 Career Spanish3 Credits**

For students with a background in FLAS 111 and FLAS 112 [First Year Spanish I & II] or their equivalent who wish to perfect command of the language in a variety of workplaces and professional areas of interest.  
**Prerequisites:** FLAS 111 and FLAS 112 [or their equivalent].

**FLAS 211 Second-Year Spanish I3 Credits**

End of basic Spanish language skills. Introduces subjunctive mood, future and conditionals and other language constructions.

**Prerequisites:** FLAS 112 or permission of instructor.

**Essential Learning Categories:** Humanities

**FLAS 212 Second-Year Spanish II3 Credits**

Review of Spanish grammar. Practice in writing, speaking, listening comprehension and reading.

**Prerequisites:** FLAS 211, or permission of instructor.

**FLAS 213 Spanish Conversation and Grammar3 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 (can be taken concurrently with FLAS 300).

**Essential Learning Categories:** Humanities

**FLAS 290 Special Studies in Spanish1-3 Credits****FLAS 295 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**FLAS 296 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**FLAS 300 Spanish Composition and Grammar3 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).

**FLAS 301 Advanced Spanish Grammar3 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 Composition3 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 301 or permission of instructor.

**FLAS 303 Advanced Spanish Conversation3 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 301 and FLAS 302.

**FLAS 304 Advanced Oral Production and Composition3 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.

**FLAS 305 Advanced Spanish Grammar and Spanish English Contrasts3 Credits**

Development of grammatical awareness and accuracy, oriented towards a practical use of Spanish. Includes comparison and contrast of English and Spanish grammar.

**Prerequisites:** FLAS 300.

**FLAS 311 History and Culture of Spain3 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.

**FLAS 312 History and Culture of Latin America3 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:** Spring.

**FLAS 321 Introduction to the Literature of Spain3 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 301, FLAS 302, and FLAS 303, or permission of instructor.

**FLAS 322 Introduction to the Literature of Latin America3 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 301, FLAS 302, and FLAS 303, or permission of instructor.

**FLAS 323 Introduction to Hispanic Literature I3 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.

**FLAS 324 Introduction to Hispanic Literature II3 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:** Spring.

**FLAS 341 Introduction to Hispanic Linguistics3 Credits**

Introduction to human language with Spanish as the primary source for description and analysis. Explores Phonology, Word formation, Language Acquisition, 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.

**FLAS 395 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**FLAS 396 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**FLAS 421 Hispanic Poetry3 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 Prose3 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 301, FLAS 302, FLAS 303, and FLAS 341.

**FLAS 423 Hispanic Drama and Film3 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 301, FLAS 302, FLAS 303, and FLAS 341, or permission of instructor.

**FLAS 424 Advanced Hispanic Literature3 Credits**

Exploration of important Hispanic literary movements through a more in-depth study of genres, including prose, poetry, film, and drama. Topics vary.

**Prerequisites:** FLAS 323 or FLAS 324.

**FLAS 431 Spanish for Medical and Social Services3 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.

**FLAS 433 Spanish for the Professions3 Credits**

Exploration of linguistic and cultural aspects of professional practices in a Hispanic context. Developing skills necessary for professional communication.

**Prerequisites:** FLAS 341 or FLAS 323 or FLAS 324 or FLAS 311 or FLAS 312.

**FLAS 434 Introduction to Translation3 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 Interpreting3 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 441 Applied Phonetics and Phonology3 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, and Spanish and English in contrast.

**Prerequisites:** FLAS 341.

**FLAS 442 Methodology of Teaching Foreign Languages3 Credits**

Examination of current trends, methods, and techniques in foreign language pedagogy.

**Prerequisites:** FLAS 301, FLAS 302, FLAS 303, FLAS 341, and FLAS 441, or permission of instructor.

**FLAS 444 Using Technology, Literature and Culture in the Spanish Language Classroom3 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, or permission of instructor.

**FLAS 446 Spanish Language Variation3 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:** Spring.

**FLAS 495 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**FLAS 496 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**FLAS 498 Spanish Senior Practicum3 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.

## Forensic Anthropology (FOAN)

**FOAN 296 Topics:1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**FOAN 396 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**FOAN 475 Human Remains Detection and Recovery for Medico-Legal Investigations3 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.

**FOAN 499 Internship1-6 Credits**

Opportunities to apply theoretical principles in a structured research or organizational environment. Required clock hours dependent upon credit hours.

**Prerequisites:** Junior or senior status, BIOL 410, permission of instructor, Hepatitis B vaccinations, and a TB skin test before and after class.

Course may be taken multiple times up to maximum of 15 credit hours.

## Geographic Information Systems Technology (GIST)

**GIST 305 Cartography for GIS1 Credit**

Introduction to maps as tools for communication and analysis of locationally-related information.

**GIST 321 Introduction to Remote Sensing2 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 Laboratory1 Credit**

Lab component required for GIST 321.

**Prerequisites:** GIST 332/GIST 332L.

**Corequisites:** GIST 321.

**Fees:** Yes.

**GIST 332 Introduction to Geographic Information Systems2 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 Laboratory1 Credit**

Lab component required for GIST 332.

**Prerequisites:** GIST 305 or GEOG 131.

**Corequisites:** GIST 332.

**Fees:** Yes.

**GIST 375 Global Positioning Systems for GIS2 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 Laboratory1 Credit**

Lab component required for GIST 375.

**Prerequisites:** GIST 332/GIST 332L.

**Corequisites:** GIST 375.

**Fees:** Yes.

**GIST 396 Topics1-3 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 Editing2 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 Laboratory1 Credit**

Lab component required for GIST 422.

**Prerequisites:** GIST 332/GIST 332L.

**Corequisites:** GIST 422.

**GIST 432 Spatial Analysis and Modeling in GIS2 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 Laboratory1 Credit**

Lab component required for GIST 432.

**Prerequisites:** GIST 332/GIST 332L.

**Corequisites:** GIST 432.

**Fees:** Yes.

## Geography (GEOG)

**GEOG 102 Human Geography-GTSS23 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-GTSS23 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 Cartography3 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 Topics1-3 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 Perspective3 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 Scientists2 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:** Spring.

**GEOG 341L GIS for Social Scientists Lab1 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:** Spring.

**GEOG 354 Political Geography3 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 Internship1-3 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 Internship1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

## Geology (GEOL)

**GEOL 100 Survey of Earth Science-GTSC23 Credits**

Physical makeup of the earth, its history, and geology. One field trip is required. Intended for students with majors other than one of the sciences.

**Essential Learning Categories:** Natural Sciences

**Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum**

**Fees:** Yes.

**GEOL 103 Weather and Climate-GTSC23 Credits**

Non-mathematical introduction to elements of local and global weather: the atmosphere, cloud formation, precipitation, seasons, optical phenomena and violent storms. Students practice making 24-hour weather forecasts.

**Essential Learning Categories:** Natural Sciences

**Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum**

**GEOL 104 Oceanography-GT-SC23 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 interrelationship with the hydrosphere are also examined.

**Essential Learning Categories:** Natural Sciences

**Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum**

**GEOL 105 Geology of Colorado-GTSC23 Credits**

Introduction to minerals, rocks, geologic time scale and basic geologic terms, followed by geology of Colorado taught with the aid of movies and slides. A one-day field trip is required.

**Essential Learning Categories:** Natural Sciences

**Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum**

**Fees:** Yes.

**GEOL 106 Introduction to Dinosaurs-GT-SC23 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. Includes two full-day field trips to local dinosaur quarries and museums.

**Essential Learning Categories:** Natural Sciences

**Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum**

**Fees:** Yes.

**GEOL 107 Natural Hazards and Environmental Geology-GTSC23 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 - GTSC23 Credits**

General introduction to the essential nature of water on Earth. Provides students with a comprehensive foundation in the water cycle, human use of water, water and the environment, the politics of water, and the critical issues surrounding water as a resource. Overview of global water issues as well as a focus on water in the American West, including the sources and uses of water, its importance as a resource, the critical issues of water conservation and scarcity, and the legal, political, economic and physical infrastructure that controls water in the American West.

**Essential Learning Categories:** Natural Sciences

**Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum**

**GEOL 111 Principles of Physical Geology-GTSC13 Credits**

Materials that make up the earth and surface and interior processes that interact to produce the present features of the earth. Laboratory: minerals, rocks, topographic maps, earth quakes, and landforms. Three lectures and one two-hour laboratory per week.

**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**

**GEOL 111L Principles of Physical Geology Laboratory-GTSC11 Credit**

Lab component required for GEOL 111.

**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**

**Fees:** Yes.

**GEOL 112 Principles of Historical Geology-GTSC13 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 sequence. Laboratory: topographic and geologic maps, hand samples of rocks, reconstruction exercises, and fossils to interpret regional and general geologic history. One all-day field trip is required. Four lectures and one two-hour laboratory per week.

**Prerequisites:** GEOL 111/GEOL 111L or GEOL 113/GEOL 113L or permission of instructor.

**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**

**GEOL 112L Principles of Historical Geology Laboratory-GTSC11 Credit**

Lab component required for GEOL 112.

**Prerequisites:** GEOL 111/GEOL 111L or GEOL 113/GEOL 113L or permission of instructor.

**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**

**Fees:** Yes.

**GEOL 113 Field-Based Introduction to Physical Geology-GTSC13 Credits**

Introduction to minerals, rocks, Earth structures, mountain building processes, and other elements of physical geology for science and non-science majors. A majority of class time will be spent in the field (including one Saturday) observing and mapping geological features of Western Colorado. There will be some indoor lectures and laboratory work. This course is recommended for prospective K-12 teachers.

**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**

**GEOL 113L Field-Based Introduction to Physical Geology Laboratory-GTSC11 Credit**

Lab component required for GEOL 113.

**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**

**Fees:** Yes.

**GEOL 196 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**GEOL 202 Introduction to Field Studies3 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 Geology3 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 Geology3 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 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**GEOL 301 Structural Geology3 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 Laboratory1 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 Geology3 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 Mineralogy3 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 Laboratory1 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 Country1 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 Petrology3 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 Laboratory1 Credit**

Lab component required for GEOL 340.

**Prerequisites:** GEOL 331.

**Corequisites:** GEOL 340.

**Fees:** Yes.

**GEOL 351 Applied Geochemistry3 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, CHEM 122/CHEM 122L, and GEOL 111/GEOL 111L or GEOL 113/GEOL 113L.

**GEOL 355 Basic Hydrology3 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 Water3 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 Laboratory1 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 Systems3 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 Laboratory1 Credit**

Lab component required for GEOL 443.

**Prerequisites:** GEOL 202.

**Corequisites:** GEOL 443.

**GEOL 444 Sedimentology and Stratigraphy3 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 Laboratory1 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 Design2 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 Dynamics3 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 Laboratory1 Credit**

Lab component required for GEOL 455.

**Prerequisites:** GEOL 355 or permission of instructor.

**Corequisites:** GEOL 455.

**GEOL 480 Summer Field Camp6 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 Seminar3 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 Education3-12 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**GEOL 495 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**GEOL 496 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**GEOL 496L Topics Lab1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**GEOL 497 Structured Research1-3 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 Internship1-4 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

## Gerontology (GRNT)

**GRNT 110 Introduction to Gerontology3 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 Adults3 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 Care1 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 Training2 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 Mind3 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 Design2 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 Design1 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 Aging2 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 Aging3 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 Professions2 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 Life3 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 Care1 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 Care3 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 Practices1 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/Practices1 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 Coordination3 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 Aging3 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 Health3 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 Aging3 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, Spring.

**GRNT 250 Death: Cross-Cultural Perspectives3 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 Services2 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 Loss2 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 Communities3 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 Seminar1 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 Internship3 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)

**HSCI 101 Introduction to Health Care Professions3 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 295 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**HSCI 401 Health Informatics I - Data Analysis2 Credits**

Reviews statistical analysis, HIPPA, confidentiality, and terminology pertinent to health informatics.

**Prerequisites:** Permission of instructor.

**HSCI 406 Health Informatics II: Project Design & Implementation2 Credits**

Explores application of knowledge and skills to selected health informatics project.

**Prerequisites:** Permission of instructor.

**HSCI 501 Advanced Health Informatics I - Data Analysis1 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 Implementation2 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)

**HVAC 102 Basic Refrigeration4 Credits**

Introduction to the theory of refrigeration, components, charging, recycling, and evacuation of refrigeration units.

**Terms Typically Offered:** Spring.

**HVAC 103 Basic Electricity3 Credits**

Introduction to the basic electrical AC theory, including the study of Ohm's Law to explain the operation of electrical devices.

**Terms Typically Offered:** Fall.

**HVAC 106 Introduction to Service Technician Training1 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.

**HVAC 110 Fundamentals of Gas Heating4 Credits**

Introduction to the fundamentals of gas heating. Students work in a classroom and shop environment. 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.

**HVAC 111 Piping Skills for HVAC4 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.

**HVAC 113 Refrigerant Recovery Training1 Credit**

Introduction to the laws regarding refrigerant recovery. The course includes hands-on use of recovery equipment. Environmental Protection Agency certification is included in this course and required nationally. Upon completion of the course, students will be prepared for successful completion of the certification exam. The student will be required to pay approximately \$40.00 to sit for the EPA exam.

**Terms Typically Offered:** Spring.

**HVAC 117 OSHA Ten-Hour Voluntary Compliance1 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 that complete the course will receive a certificate of completion from the United States Department of Labor, Occupational Safety and Health Administration. The course is taught by instructors certified by the Occupational Safety and Health Administration.

**Terms Typically Offered:** Fall.

**HVAC 122 Commercial Refrigeration4 Credits**

Introduction to commercial ice makers, walk-in coolers, walk-in freezers, and self-contained refrigeration units.

**Prerequisites:** HVAC 102.

**Terms Typically Offered:** Fall.

**HVAC 146 Residential Duct Design2 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.

**HVAC 202 Troubleshooting and Customer Service3 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.

**HVAC 204 Direct Digital Controls4 Credits**

Introduction to the field of direct digital controls in HVAC systems.

**Terms Typically Offered:** Fall.

**HVAC 222 Heating, Ventilation, Air Conditioning, and Refrigeration Systems Troubleshooting5 Credits**

Introduction to troubleshooting industrial and commercial heating, ventilating, air conditioning, and refrigeration systems.

**Prerequisites:** HVAC 202.

**Terms Typically Offered:** Fall.

**HVAC 240 Servicing Forced Air Systems4 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.

**HVAC 261 Air Conditioning Systems Service and Repair4 Credits**

Introduction to the service and repair of HVAC systems. Troubleshooting techniques and equipment repair will be practiced.

**Terms Typically Offered:** Spring.

## History (HIST)

**HIST 101 Western Civilization I-GTHI13 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**

**HIST 102 Western Civilization II-GTHI13 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**

**HIST 131 United States History I-GTHI13 Credits**

History of the United States from Colonial period through the Civil War.

**Essential Learning Categories:** History, Humanities

**Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum**

**HIST 132 United States History II-GTHI13 Credits**

History of the United States from the Civil War through modern times.

**Essential Learning Categories:** History, Humanities

**Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum**

**HIST 202 Introduction to Historical Research3 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.

**HIST 225 History of Colorado3 Credits**

History of the state from pre-historic to modern times.

**HIST 296 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**HIST 300 History of England to 16603 Credits**

Examines 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.

**HIST 301 History of Modern Britain3 Credits**

Examines the political, social, and cultural history of Great Britain from the Restoration of the monarchy in 1660 to the modern era.

**Prerequisites:** HIST 102.

**HIST 302 History of Modern France3 Credits**

France from the Revolution of 1789 to the present.

**Prerequisites:** HIST 102 or permission of instructor.

**HIST 303 History of Modern Germany3 Credits**

Origins and development of the modern Germany nation-state from 1860 to the present.

**Prerequisites:** HIST 102 or permission of instructor.

**HIST 305 The Old South3 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 Civilization3 Credits**

Historical development of Latin America from pre-Columbian times to the present.

**Prerequisites:** HIST 102 or permission of the instructor.

**HIST 315 American Indian History3 Credits**

American Indian history from pre-Columbian America to the present with an emphasis on federal Indian policy. Case studies will also address the adaptation of Indian people to changing social and economic conditions.

**Prerequisites:** HIST 131 and HIST 132.

**HIST 316 American Slavery3 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.

**HIST 320 The American West3 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, HIST 132, or permission of instructor.

**HIST 330 History of 19th Century Europe3 Credits**

Political, social, intellectual, and diplomatic forces operating in Europe between the French Revolution and World War I.

**Prerequisites:** HIST 101 and HIST 102.

**HIST 331 The 20th Century3 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, HIST 102 or permission of instructor.

**HIST 332 History of Modern Warfare3 Credits**

War, its causes, consequences, and impact on history from the 18th century to the present.

**Prerequisites:** HIST 101 and HIST 102.

**HIST 333 The International History of the Cold War3 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.

**HIST 334 History of the British Empire3 Credits**

Explores the origins, development, and decline of the British Empire from 1550 to 2000, with particular attention on the effects of empire on native peoples and the consequences of empire for Great Britain.

**Prerequisites:** HIST 102.

**HIST 340 History Of the Middle East3 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.

**HIST 342 The Early American Republic3 Credits**

The social, cultural, intellectual and political developments in America from 1783-1850.

**Prerequisites:** HIST 131.

**HIST 344 The Age of Industry in America3 Credits**

The 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, HIST 132, or permission of instructor.

**HIST 345 History of Immigration, Race, and Ethnicity in America3 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.

**HIST 346 The United States in the 1950's and 1960's3 Credits**

The social, intellectual, and political Events in the U.S. form the end of WWII through the 1960s.

**Prerequisites:** HIST 131, HIST 132, or permission of instructor.

**HIST 347 Global America: 1970-20003 Credits**

The political and social implications of America as the dominant global power, from 1970 to the present.

**Prerequisites:** HIST 132.

**HIST 350 Renaissance and Reformation3 Credits**

Examines the political and social context of the Renaissance and Reformation.

**Prerequisites:** HIST 101.

**HIST 355 Ancient and Medieval Cities3 Credits**

The development (physical, social, political) of cities in the ancient and medieval periods and their role in early western civilization.

**Prerequisites:** HIST 101.

**HIST 360 Medieval Europe3 Credits**

Examines the political, social, and religious institutions of Medieval Europe (300-1475).

**Prerequisites:** HIST 101.

**HIST 370 Early United States Women's History3 Credits**

Historical survey of cultural, economic, and political contributions of American women from colonization to Reconstruction.

**Prerequisites:** HIST 131.

**HIST 371 20th Century United States Women's History3 Credits**

Historical survey of cultural, economic, and political contributions of American women from Reconstruction to the present.

**Prerequisites:** HIST 131 and HIST 132.

**HIST 375 American Sport History3 Credits**

An examination of American society from the Colonial era to the present through the lens of sport.

**Prerequisites:** HIST 131 or HIST 132. Both courses are recommended.

**HIST 394 Junior Seminar in Historiography3 Credits**

Examines the role of historiography in the historical discipline, with the intent of preparing students to undertake an historical research project. Topic varies by semester, depending upon specialty of instructor.

**Prerequisites:** HIST 101, HIST 102, HIST 132, and HIST 202.

**HIST 395 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**HIST 396 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**HIST 399 Internship1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**HIST 400 The Soviet Union and Eastern Europe3 Credits**

Imperial Russia, the Soviet Union, and Eastern Europe from 1900 to the present.

**Prerequisites:** HIST 101, HIST 102 or permission of instructor.

**HIST 403 East Asia and the Modern World3 Credits**

China, Japan, Korea, and Vietnam since 1840.

**Prerequisites:** HIST 101 and HIST 102, or permission of instructor.

**HIST 404 Senior Seminar in Historical Research3 Credits**

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 or permission of instructor.

**HIST 405 Introduction to Public History3 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, HIST 132, or permission of instructor.

**HIST 406 History of the African Continent3 Credits**

The development of African cultures from the ancient to modern periods, with particular attention to interaction with non-African cultures.

**Prerequisites:** HIST 101 and HIST 102, or permission of instructor.

**HIST 409 Material Culture Studies3 Credits**

Introduction to the field of material culture studies and engagement in hands-on work with a variety of historical artifacts.

**Prerequisites:** HIST 131 and HIST 132, or permission of the instructor.

**HIST 410 Environmental History of the United States3 Credits**

The evolution 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, HIST 132, or permission of instructor.

**HIST 415 Colonial America3 Credits**

Examines 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.

**HIST 416 The American Revolution3 Credits**

An overview of and perspectives on the causes and outcomes of the American Revolution.

**Prerequisites:** HIST 131.

**HIST 420 Civil War3 Credits**

The causes and outcomes of the American Civil War.

**Prerequisites:** HIST 131, or permission of instructor.

**HIST 425 History of Sexuality3 Credits**

Historical discussions on sexuality from the New World to present. Analysis of gender, race, ethnicity, class, and region in historical context.

**Prerequisites:** HIST 132.

**HIST 430 The Ancient Mediterranean World3 Credits**

The Mediterranean world from pre-classical times to the fall of the Roman Empire.

**Prerequisites:** HIST 101.

**HIST 435 Classical Archaeology3 Credits**

Examines 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.

**HIST 440 Early and Medieval Christianity3 Credits**

Examines 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.

**HIST 445 The Holocaust3 Credits**

Exploration of the origins, implementation, and cultural representations of Nazi Germany's "Final Solution."

**Prerequisites:** HIST 102.

**HIST 450 European History and Film3 Credits**

Examines 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.

**HIST 495 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**HIST 496 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**HIST 499 History Internship1-4 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.

**HIST 501 Early American History: Foundation - Civil War3 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 - Reformation3 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 Century3 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)

**HNRS 196 Topics:1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**HNRS 396 Topics1-3 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 Thesis3 Credits**

Course may be taken multiple times up to maximum of 9 credit hours.

## Hospitality Management (HMGT)

**HMGT 101 Travel Industry I3 Credits**

Introduction to tourism and its relationship to the business world, 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.

**HMGT 102 Travel Industry II3 Credits**

Evaluation of job opportunities in the travel, recreation, and hospitality fields. Travel trends, feasibility studies, and marketing techniques are analyzed. Students are provided an opportunity to make preparations and acquire skill instructions for work in the student's career objective. Field trips and visiting lecturers are included.

**Prerequisites:** HMGT 101 or permission of instructor.

**HMGT 103 Travel and Tourism Marketing Techniques3 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 199 Employment Concepts1 Credit**

Introduction of the concepts of employment in conjunction with the internship experience. It will provide students with an opportunity to share their concerns with the instructor and other students, allow employers to discuss the internship with students and assist the student in developing his or her career goals. The student will enroll in this course the spring semester immediately preceding the summer they intend to do their HMGT 299 Internship.

**Prerequisites:** HMGT 101.

Course may be taken multiple times up to maximum of 6 credit hours.

**HMGT 200 Management and Supervisory Skills for the Hospitality Industry3 Credits**

Evaluates the supervisory and management processes through a comprehensive overview of how these processes relate to specific hospitality industry applications.

**Prerequisites:** HMGT 101 or permission of instructor.

**HMGT 201 Management in the Travel Industry I3 Credits**

An opportunity to explore operating techniques and problems of the major industries involved in tourism, travel, and hospitality through the eyes of the operating manager. Specific skills used within various industries are developed.

**Prerequisites:** HMGT 200 or permission of instructor.

**HMGT 211 Travel Destinations3 Credits**

For the individual who plans to work, study, or travel internationally including the professional who is, or plans to be, part of the travel industry. Life styles and current local aspects in foreign destinations are considered and guest lecturers are included. Open to all students but strongly recommended for Hospitality Management students.

**HMGT 215 Computerized Reservations3 Credits**

An introductory course providing an overview of operation of a computerized reservations system.

**Prerequisites:** HMGT 101 and HMGT 200.

**HMGT 217 Hotel Operations3 Credits**

Introductory course providing an overview of the operation of a hotel front office. This will include the use of the personal computer and state-of-the-art software for reservations, check-in, check-out, and creating the daily report.

**Prerequisites:** HMGT 101.

**HMGT 218 Housekeeping Operations3 Credits**

Comprehensive overview of managing housekeeping operations in the lodging industry including practical applications to industry segments and impact on capital expenditures.

**Prerequisites:** HMGT 101 or permission of instructor.

**HMGT 241 Food and Beverage Operations3 Credits**

Comprehensive overview of management processes in food and beverage operations including site visits and industry guest lecturers.

**Prerequisites:** HMGT 101 or permission of instructor.

**HMGT 295 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**HMGT 296 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**HMGT 299 Internship1-12 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:** HMGT 200, GPA of 2.00 or higher, or permission of instructor.

Course may be taken multiple times up to maximum of 6 credit hours.

**HMGT 310 Travel and Tourism Marketing Techniques3 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 Travel3 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 350 Private and Commercial Recreation Systems3 Credits**

Profit-based recreation industry, including managing the recreation enterprise, economic feasibility studies, small business entrepreneurship, market characteristics, professional opportunities, and trade association research and publications.

**Prerequisites:** HMGT 101 and MANG 201.

**HMGT 351 Community Tourism Systems3 Credits**

Community as a tourist destination area with concentration on identification of linkages between tourism industries and local economies, and the process of developing and managing park and recreation resources to serve the tourist.

**Prerequisites:** HMGT 101, HMGT 200, and MANG 201.

**HMG 352 Public Recreation Systems 3 Credits**

National and state outdoor recreation resource management systems including a variety of administrative tools applicable to operation and maintenance as well as comprehensive discussion of legislation, land use policy, forest recreation planning, and governmental designation programs.

**Prerequisites:** HMG 101, HMG 200, and MANG 201.

**HMG 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.

**HMG 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:** HMG 101 and HMG 200.

**Terms Typically Offered:** Fall.

**HMG 396 Topics:1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**HMG 400 Hospitality Security and Safety 3 Credits**

Individualized security programs. Security and safety equipment and procedures. Guest protection, asset protection, risk management, loss prevention, and OSHA regulations for lodging properties.

**Prerequisites:** BUGB 349.

**HMG 410 Hospitality Facilities Management 3 Credits**

Hotel or restaurant physical plant management. Interface with engineering and maintenance departments.

**Prerequisites:** HMG 101 and HMG 200, or permission of instructor.

**HMG 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.

**HMG 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:** HMG 101, HMG 200, HMG 410, HMG 450, or permission of instructor.

**HMG 495 Independent Study 1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**HMG 496 Topics:1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**HMG 499 Internship 1-12 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

## Human Resource Management (HRMA)

**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, or permission of instructor.

**HRMA 372 Employee Recruitment and Selection 3 Credits**

Knowledge and skills necessary to effectively analyze and forecast organizational staffing requirements, assess, recruit and select candidates, and effectively retain employees in today's complex organizations. Legal aspects of staffing process emphasized.

**Prerequisites:** HRMA 371.

**Terms Typically Offered:** Fall, Summer.

**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.

**Equivalent Course(s):** MANG 370

**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, Spring.

**HRMA 475 Compensation and Reward Systems 3 Credits**

Designing 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:** Fall, 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**

Provides an 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. Also included is a detailed review of current statutes and regulations affecting the HR field.

## Humanities (HUMA)

### HUMA 196 Topics1-3 Credits

Course may be taken multiple times up to maximum of 15 credit hours.

### HUMA 201 Field Studies in Humanities1-3 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 Topics1-3 Credits

Course may be taken multiple times up to maximum of 15 credit hours.

### HUMA 300 History and Development of Books3 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 Humanities1-3 Credits

**Prerequisites:** Junior or above standing.

### HUMA 395 Independent Study1-3 Credits

Course may be taken multiple times up to maximum of 6 credit hours.

### HUMA 396 Topics1-3 Credits

Course may be taken multiple times up to maximum of 15 credit hours.

### HUMA 495 Independent Study1-3 Credits

Course may be taken multiple times up to maximum of 6 credit hours.

### HUMA 496 Topics1-3 Credits

Course may be taken multiple times up to maximum of 15 credit hours.

### HUMA 499 Internship8 Credits

See faculty advisor for details.

Course may be taken multiple times up to maximum of 15 credit hours.

## Innovation (INOV)

### INOV 310 The Process of Innovation3 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 Launch3 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 Internship1-9 Credits

Course may be taken multiple times up to maximum of 15 credit hours.

### INOV 450 Innovation Garage3 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 Internship1-9 Credits

Course may be taken multiple times up to maximum of 15 credit hours.

## International Studies (INTS)

### INTS 101 Introduction to International Studies3 Credits

Introduction to concepts, paradigms, and theories used to describe and explain International Studies. Attention given to the interdisciplinary nature of academic disciplines, peoples in cultural context, environments, education systems, world resources, social and economic institutions.

### INTS 396 Topics1-3 Credits

Course may be taken multiple times up to maximum of 15 credit hours.

## Kinesiology-Academic (KINE)

### KINE 100 Health and Wellness1 Credit

The presentation of information concerning the benefits, positive effects, assessment, and implementation of healthy life styles.

### KINE 195 Independent Study1-3 Credits

Course may be taken multiple times up to maximum of 6 credit hours.

### KINE 200 Foundations of Kinesiology3 Credits

Orientation to the history and philosophy of Kinesiology and the development of various sub-disciplines. Introduction to career pathways.

### KINE 203 Human Nutrition3 Credits

Introduction to the science of the effects of food on the body and the body's need for and utilization of essential nutrients.

### KINE 205 Introduction to Sport Management3 Credits

Survey and introduction to the field of sport management.

### KINE 211 Methods of Lifetime, Individual, and Dual Activities3 Credits

Instructional content (scope and sequence) and teaching methodology related to various individual, dual and lifetime activities appropriate for K-12 physical education.

### KINE 213 Applications of Physical Fitness and Exercise Prescription3 Credits

Exercise program design and prescription to meet individual needs, assess existing exercise programs, and evaluation of the effectiveness. Major components of cardio-respiratory endurance, muscular strength, muscular endurance, flexibility, and body composition discussed in detail.

**Prerequisites:** KINE 100.

### KINE 214 Methods of Team Activities3 Credits

Instructional content (scope and sequence) and teaching methodology related to various team activities appropriate for K-12 physical education.

### KINE 250 Lifeguard Training3 Credits

Knowledge and skills required towards certification in lifeguard training.

### KINE 251 Water Safety Instructor Course3 Credits

Instructional content (scope and sequence) and teaching methodology related to various aquatic activities.

### KINE 256 Methods of Creative Play, Dance, Gymnastics, and Literacy3 Credits

Instructional content (scope and sequence) and teaching methodology related to creative play, dance, gymnastics and literacy activities.

**Prerequisites:** KINE 211 or KINE 214.

### KINE 260 School Health Education3 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.



**KINE 265 Emergency Care3 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 Practicum1-2 Credits**

Work-oriented instruction involving the implementation of classroom or laboratory experience under the direct supervision of a faculty member. Course may be taken 5 times for credit.

**KINE 301 Health and Fitness Assessment3 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 Exercise3 Credits**

The effects of various types of exercise upon human body structure and function. Three one-hour lectures and one two hour laboratory per week.

**Prerequisites:** KINE 213 and BIOL 209/BIOL 209L.

**Corequisites:** KINE 303L.

**KINE 303L Physiology of Exercise Laboratory1 Credit**

Lab component required for KINE 303.

**Prerequisites:** KINE 213 and BIOL 209/BIOL 209L.

**Corequisites:** KINE 303.

**KINE 307 Philosophy and Psychology of Coaching3 Credits**

Fundamental philosophical and psychological principles related to coaching competitive athletic teams.

**KINE 308 Philosophy and Psychology of Officiating3 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 Kinesiology3 Credits**

Analysis of joint movement and muscular involvement during physical activity.

**Prerequisites:** BIOL 209/BIOL 209L.

**KINE 310 Methods of Exercise Instruction3 Credits**

Practical experience in teaching safe and effective exercise for multiple populations.

**Prerequisites:** KINE 213 and KINE 309.

**KINE 320 Methods of Teaching Physical Education in Elementary Schools3 Credits**

Exploration of the physical education content and teaching methods appropriate for elementary school education.

**Prerequisites:** EDUC 115, EDUC 215, and KINE 256.

**KINE 321 Physical Activity and Health in the Classroom3 Credits**

Integration of health and physical activity concepts in the gym and classroom. For education majors.

**KINE 333 Community Health3 Credits**

Introduction to the areas of epidemiology, disease prevention and control, environmental health, health care, injury prevention, and safety education.

**KINE 335 Sport in Society3 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 Operations3 Credits**

Theoretical background and practical applications designed to provide a framework for the management of resources associated with the planning, implementation and evaluation of festivals and special events.

**KINE 342 Sport Law and Recreation Risk Management3 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 Sport3 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 Sport3 Credits**

This course is designed to give individuals an understanding of the various aspects of leadership as well as a survey course of the development and application of moral and ethical values in sport administration settings.

**KINE 360 Motor Learning3 Credits**

Foundations of motor learning and the relation of motor performance to other aspects of behavior.

**KINE 370 Biomechanics3 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.

**KINE 370L Biomechanics Laboratory1 Credit**

Lab component required for KINE 370.

**Prerequisites:** BIOL 209/BIOL 209L and KINE 309.

**Corequisites:** KINE 370.

**KINE 395 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**KINE 396 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**KINE 397 Practicum1-2 Credits**

Course may be taken 5 times for credit.

**KINE 399 Internship1-6 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**KINE 401 Organization/Administration/Legal Considerations in Physical Education and Sports3 Credits**

Organizational structures, administrative techniques, and legal considerations in physical education and sports.

**KINE 402 Sport Marketing3 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, MARK 231.

**Terms Typically Offered:** Fall, Spring, Summer.

**KINE 403 Advanced Strength and Conditioning3 Credits**

Emphasis on strength and conditioning program design and considerations based on activity and sport type.

**Prerequisites:** KINA 128 or KINA 180-KINA 193, and KINE 303/KINE 303L.

**KINE 404 Clinical Exercise Physiology and Advanced Exercise Prescription3 Credits**

Emphasis on clinical risk stratification for conducting health and fitness assessments and exercise program design for healthy individuals and individuals with medically controlled disease.

**Prerequisites:** KINE 303/KINE 303L.

**KINE 405 Sports Nutrition3 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. Three one-hour lectures per week.

**Prerequisites:** KINE 203 and KINE 303/KINE 303L.

**KINE 406 Governance and Communication in Sport3 Credits**

The laws and rules governing various sport organizations from interscholastic to professional sport as well as the major means of sport communication.

**KINE 408 Methods of Teaching Physical Education in Secondary Schools3 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 Promotion3 Credits**

Covers worksite health promotion: its description, planning, implementation, marketing, and evaluation.

**Prerequisites:** KINE 213.

**KINE 415 Physical Activity and Aging3 Credits**

The 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.

**KINE 417 Health Behavior Change3 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 Interventions3 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 Sports3 Credits**

An overview of the effects on physical activity resulting from the pre-existence of selected medical conditions and the use of pharmacological agents.

**KINE 480 Inclusive Physical Activity3 Credits**

Study of physical activities, modifications, and adaptations for individuals with disabilities.

**KINE 487 Structured Research1-3 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 Seminar1 Credit**

Discussion and research of current issues in kinesiology and exercise physiology.

**Prerequisites:** Senior status.

**KINE 494A Sport Management Senior Seminar1 Credit**

Discussion and research of current issues in sport management.

**KINE 495 Independent Study1-5 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**KINE 496 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**KINE 497 Pre-Internship in Physical Education3 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 Internship3-12 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 Fitness3 Credits**

Provides an 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.

**KINE 501 Research Methods3 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 Marketing3 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 Fitness3 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.

**KINE 520 Management Policies and Regulations in Sport and Fitness3 Credits**

Study of managerial policies and regulations to specific sport and fitness organizations to include educational, athletic, commercial and corporate entities. Topics will include the following: human resource management; labor relations; policy issues; sponsorship; budgeting; federal, state, and local statutes; CHSAA and NCAA rules and guidelines; and professional organization policies. Specific attention will be given to compliance strategies.

**KINE 530 Advanced Coaching for Basketball1 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 Coaches1 Credit**

Specialized procedures and techniques involved in the prevention and management of common athletic injuries.

**KINE 535 Sport in Society3 Credits**

Exploration of role and impact of sports in our society from a social view. The course will discuss various sociological constructs as they 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 Ethics3 Credits**

Focus on legal issues pertaining to amateur and professional sports. Tort law, negligence, contract, antitrust, labor, facility, exculpatory, and licensing law will be analyzed 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 synthesizing ethical reasoning knowledge and skills.

**Terms Typically Offered:** Fall.

**KINE 545 Sport Finance3 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 Management3 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 Research3 Credits****KINE 590 Thesis I3 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 Readings3 Credits****KINE 592 Thesis II3 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 Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**KINE 599 Internship1-6 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

## Kinesiology-Activity (KINA)

**KINA 101 Beginning Swimming1 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 Swimming1 Credit**

Continued development of swimming and water safety skills. Enhance swimming fitness and overall conditioning.

**Terms Typically Offered:** Fall, Spring.

**KINA 103 Springboard Diving1 Credit**

Instruction of the basic techniques and mechanics of springboard diving. Develop proper competitive diving skills.

**Terms Typically Offered:** Fall, Spring.

**KINA 104 Water Polo1 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 Aerobics1 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 Scuba1 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 Scuba1 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 Canoeing1 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 Climbing1 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 Hiking1 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 Golf1 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 Frisbee1 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 Golf1 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 Badminton1 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 Karate1 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 Archery1 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 Tennis1 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 Pickleball1 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 Tennis1 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 Sports1 Credit**

Combination of racquetball, pickleball, and badminton. Introduction to rules, shots and strategies for each game.

**Terms Typically Offered:** Fall, Spring.

**KINA 126 Fitness Walking1 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 Conditioning1 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.

**Fees:** Yes.

**KINA 128 Intermediate Weight Training1 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 Training1 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 Aerobics1 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 Skiing1 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.

**Fees:** Yes.

**KINA 134 Snowboarding1 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.

**Fees:** Yes.

**KINA 137 Fencing1 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 Fencing1 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 Aerobics1 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 Snowshoeing1 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-Defense1 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 Pilates1 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 Cycling1 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 Activity1 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 Softball1 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 Soccer1 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 III1 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 Skiing1 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 Volleyball1 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 Volleyball1 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 Volleyball1 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 Basketball1 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 Basketball1 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 Football1 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 Rugby1 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 Chi1 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 Yoga1 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 & Relaxation1 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 Yoga1 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 Zumba1 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/Snowboarding1 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.

**Fees:** Yes.

**KINA 174 Social Dance1 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 Diving1 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 Participation1 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)

**SURV 100 Introduction to Surveying/Field Work3 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.

**SURV 102 Surveying Calculations I4 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 200 Advanced Surveying Field Work3 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 Surveying3 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 Descriptions2 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/Calculations4 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 Evidence3 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 Expectations2 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 Project4 Credits**

Demonstrated 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 135, MATH 146, or MATH 151.

**Terms Typically Offered:** Fall, Spring, Summer.

## Machining/Manufacturing (MAMT)

**MAMT 101 Introduction to Manufacturing2 Credits**

The course is designed to give the student a broad overview of the world of manufacturing. The course will include people, materials, machines, design, organization, waste, quality, and other subjects which effect society and production of a product.

**MAMT 102 Machining Fundamentals1 Credit**

Concentrated unit dealing with speeds and feeds of machines, materials, tooling, tapping, boring, and manufacturing processes.

**MAMT 105 Print Reading and Sketching2 Credits**

Reading of blueprints and process sheets as used in industry, application of that information to various manufacturing processes.

**MAMT 106 Geometric Tolerancing2 Credits**

Identification, interpretation, and application of the blueprint symbols (referred to as Geometric Tolerancing symbols) in machining and inspection operations.

**MAMT 110 Gauging and Measuring Tools1 Credit**

Uses and techniques of inspection including micrometers, Vernier scales, instruments, hole gauges in surface plate work, finish of parts and overall inspection techniques.

**Prerequisites:** MAMT 106 or permission of instructor.

**MAMT 115 Introduction to Machine Shop3 Credits**

Safety procedures: 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. One hour lecture and three hours laboratory per week.

**MAMT 120 Machine Technology I4 Credits**

Operation of engine lathes, milling machines and surface grinders. One hour lecture and five hours laboratory per week.

**Prerequisites:** Permission of instructor.

**MAMT 125 Machine Technology II4 Credits**

Further development of skills acquired in MAMT 120. Emphasis will be placed on technical aspects of tooling and machining tolerances. One hour lecture and five hours laboratory per week.

**MAMT 135 Job Shop Machining I3 Credits**

Production of machined parts from a shop blueprint, writing process sheets, and estimating machine time. Machining of parts may involve one or more machine operations. Machine time, paperwork, inspection, and accuracy will be emphasized. One hour lecture and three hours laboratory per week.

**Prerequisites:** Permission of instructor.

**MAMT 145 Machine Maintenance2 Credits**

Maintaining, lubricating, and repairing machinery including making gib adjustments, selecting and using proper lubricants and selecting or manufacturing parts of making repairs with emphasis on workmanship and inspection. One hour lecture, one and one-half hours laboratory per week.

**Prerequisites:** Permission of instructor.

**MAMT 148 CNC Applications3 Credits**

Introduction to Computer Numerical Control programming basics, CAM software and tooling used in today's manufacturing CNC Milling machines and CNC lathes.

**MAMT 150 Introduction to Numerical Control1 Credit**

Numerical control/computerized numerical control machining, its advantages and how it operates. The course is designed as an informational unit for customized pre-employment training.

**MAMT 170 Practical Applications3 Credits**

Students will gain a working knowledge in manufacturing through Co-op, internship, work experience or required lab work in industrial study if outside work cannot be acquired.

**Prerequisites:** Permission of instructor.

**MAMT 196 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**MAMT 207 Introduction to Statistical Process Control2 Credits**

Introduction to the philosophical and economic bases for statistical process control and its use; mathematical and nonmathematical SPC techniques with emphasis on application.

**MAMT 230 Machine Technology III4 Credits**

Exploration of advanced machine operations including O.D. grinding, cutter tool grinding, gear cutting, indexing, and rotary table work with an emphasis on workmanship, accuracy, and inspection.

**MAMT 240 Job Shop Machining II3 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.

**MAMT 250 Process Systems Technology2 Credits**

Advanced concepts of the philosophical and economic bases for statistical process control and its uses; mathematical and non-mathematical SPC techniques with emphasis of application.

**Corequisites:** MAMT 250L.

**MAMT 250L Process Systems Technology Laboratory2 Credits**

Advanced concepts of the philosophical and economic bases for statistical process control and its uses; mathematical and non-mathematical SPC techniques with emphasis of application.

**Corequisites:** MAMT 250.

**MAMT 251 CNC Machining I3 Credits**

Exploration of computerized numerical control machining operations, including control of functions, programming format, CNC machining setup and operation.

**MAMT 255 CNC Machining II3 Credits**

Further development of concepts introduced in MAMT 251. Emphasis of advanced operations of CNC machine tools.

**MAMT 260 Properties of Materials3 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.

**MAMT 295 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**MAMT 296 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

## Management (MANG)

**MANG 121 Human Relations In Business3 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 Management3 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.

**MANG 201A Principles of Management : Part 1 of 31 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 31 Credit**

Introduction to management planning, goal setting, organizing, human resources, teams, and organizational behavior.

**MANG 201C Principles of Management: Part 3 of 31 Credit**

Introduction to management control, quality, the role of information technology, and electronic business.

**MANG 221 Supervisory Concepts and Practices3 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 I3 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 Internship3-6 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 Behavior3 Credits**

Human behavior, its causes and effects in organizational settings. Description of and development of an understanding of human behavior in such settings.

**Prerequisites:** MANG 201 or permission of instructor.

**MANG 370 Leadership3 Credits**

Review of current leadership literature with an emphasis in application and skill building.

**Prerequisites:** MANG 201.

**Terms Typically Offered:** Fall, Spring.

**MANG 395 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**MANG 396 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**MANG 401 Strategic Consulting3 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 II6 Credits**

Continuation of MANG 401.

**Prerequisites:** Permission of instructor. (Not necessary to complete MANG 401 before MANG 402.)

**MANG 410 Effective Workplace Communication3 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 Management3 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 Business3 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 Development3 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 Management3 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 Strategy3 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 Study1-4 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**MANG 496 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**MANG 499 Internship1-9 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 Theory3 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 Management3 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.



**MANG 510 Leading Organizations3 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 Methods3 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 Strategy3 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)

**MARK 231 Principles of Marketing3 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 Behavior3 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 Promotion3 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 Management3 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 Materials3 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 Research3 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 Marketing3 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 Marketing3 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 Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**MARK 396 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**MARK 402 Sport Marketing3 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 Marketing3 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 Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**MARK 496 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**MARK 500 Marketing Strategy3 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)

**MASS 110 Mass Media: Impact and History-GTAH23 Credits**

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**

**MASS 140 Media Theory Introduction3 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 or permission of instructor.

**MASS 144 Multimedia Storytelling3 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.

**MASS 196 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**MASS 213 Introduction to Media Writing and Reporting3 Credits**

Fundamentals of news gathering and reporting through a variety of media. Exploration of ethical and legal aspects of journalistic endeavors.

**Prerequisites:** MASS 140.

**MASS 251 Mass Media: Advertising and Promotions3 Credits**

Principles of media advertising and promotions. Considers research, analysis, strategy, advertising barriers, design, and perspective.

**Prerequisites:** MASS 140.

**MASS 261 Audio Announcing and Production3 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.

**MASS 271 Video Production3 Credits**

Fundamentals of electronic field production and non-linear editing with hands-on experience with broadcast-quality equipment. Creation and execution of productions involves videography, scripting, graphic layout, and editing.

**Terms Typically Offered:** Fall.

**MASS 296 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**MASS 310 Media Law and Ethics3 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.

**MASS 313 Broadcast Journalism Reporting3 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.

**MASS 315A Specialized Writing for Media: Science3 Credits**

Specialized writing about science for various media platforms.

**Prerequisites:** MASS 213.

**MASS 315B Specialized Writing for Media: Sports3 Credits**

Specialized writing about sports for various media platforms.

**Prerequisites:** MASS 213.

**MASS 315C Specialized Writing for Media: Health3 Credits**

Specialized writing about health for various media platforms.

**Prerequisites:** MASS 213.

**MASS 315D Specialized Writing for Media: Crime3 Credits**

Specialized writing about crime for various media platforms.

**Prerequisites:** MASS 213.

**MASS 315E Specialized Writing for Media: Arts Journalism3 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 Impact3 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.

**MASS 342 Photojournalism I3 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.

**Prerequisites:** MASS 213 or permission of instructor.

**MASS 350 Public Relations Concepts3 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 Editors3 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 Producing3 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.

**MASS 372 TV Studio Production3 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.

**MASS 387 Structured Research1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**MASS 395 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**MASS 396 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**MASS 397 Practicum1 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 Reporting3 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.

**MASS 417 Writing for Public Relations and Advertising3 Credits**

Emphasizes copywriting function in public relations and advertising for organizations and agencies.

**Prerequisites:** MASS 213.

**MASS 441 Emerging Media3 Credits**

Experimentation with tools, techniques, and concepts of social and new media resulting in the creation of online content.

**Prerequisites:** MASS 213.

**MASS 442 Photojournalism II3 Credits**

Considers advanced skills necessary 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.

**MASS 450 Public Relations Campaigns3 Credits**

Campaigns and case histories presenting the scope of PR, research methodology, and audience targeting. Practical application of PR theory.

**Prerequisites:** MASS 213.

**MASS 452 Designing for Brand and Message3 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 Production3 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 494 Seminar: Advanced Theory and Research3 Credits**

Capstone course. Examination and exploration of mass communication theories. Focus on research and its importance to media disciplines and industries.

**Prerequisites:** MASS 213.

**MASS 495 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**MASS 496 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**MASS 497 Practicum1 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 498 Senior Project Portfolio1 Credit**

Identification and preparation of projects that highlight Mass Communication skills, abilities, talents, and applications.

**Prerequisites:** MASS 213 and MASS 397.

**MASS 499 Internship1-12 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)

**MATC 090 Foundations of Math2 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 Algebra4 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)

**MATH 101 Review in Mathematics1 Credit**

Review of mathematical concepts and computations. Content will vary and topics will be chosen to prepare students for a specific subsequent course.

**Prerequisites:** Permission of instructor.

**MATH 105 Elements of Mathematics I3 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 mathematics placement test score and interview, and permission of instructor.

**Terms Typically Offered:** Fall, Spring.

**MATH 107 Career Math3 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 Mathematics4 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-GTMA13 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 113 College Algebra-GTMA14 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 Review5 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

**Terms Typically Offered:** Fall, Spring.

**MATH 119 Precalculus Mathematics-GTMA15 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 Calculus4 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

**Terms Typically Offered:** Fall, Spring, Summer.

**MATH 119B Trigonometry for Calculus3 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.

**Terms Typically Offered:** Fall, Spring, Summer.

**MATH 121 Calculus for Business3 Credits**

An 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. Computer algebra systems will be used where applicable. Current college algebra skills and graphic calculator are required.

**Prerequisites:** MATH 113 or equivalent, or appropriate mathematics placement test score.

**MATH 127 Mathematics of Finance3 Credits**

Simple interest, simple discount, compound interest, continuously compounded interest, annuities, perpetuities, capitalization, determining payment size, determining outstanding principal, and constructing amortization schedules, including the derivation of mathematical formulae and the methods for solving many financial problems.

**Prerequisites:** MATH 113 or permission of instructor.

**MATH 130 Trigonometry3 Credits**

A 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 equivalent, or appropriate mathematics placement test score.

**MATH 131 Applied Calculus4 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.

**Terms Typically Offered:** Spring.

**MATH 135 Engineering Calculus I4 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. Includes techniques of integration, trigonometric and hyperbolic functions, inverse, logarithmic and exponential functions, sequences, series, conic sections, polar coordinates and parametric equations.

**Prerequisites:** MATH 135 or MATH 151.

**MATH 141 Analytical Geometry 3 Credits**

A college-level treatment of analytic geometry. Topics include Cartesian coordinate systems, distance, parallel and perpendicular lines and planes, the locus of a condition, generalizations of lines, planes and parabolas, polar coordinates and vectors in two and three dimensions.

**Prerequisites:** MATH 130 or permission of instructor.

**MATH 146 Calculus for Biological Sciences 5 Credits**

An introduction to calculus with an emphasis on applications to biology. Topics include functions, properties and graphs of polynomials, rational functions, the trigonometric, inverse, exponential and logarithmic functions, limits, continuity, differentiation, related rates, min-max problems, integration and applications of biology.

**Prerequisites:** MATH 113 or permission of instructor.

**MATH 147 Introduction to Computer Algebra Systems 1 Credit**

Introduction to computer algebra using an appropriate computer algebra system (CAS) such as Maple, Mathematica, Derive, etc. Topics will include the syntax and simple programming of the CAS used. Assignments and projects will emphasize applications in Calculus.

**Prerequisites:** MATH 119.

**Corequisites:** MATH 151.

**MATH 149 Honors Mathematics-GTMA13 Credits**

An in-depth exploration of mathematical concepts, with an emphasis on the process of mathematical discovery. Topics are left to the discretion of the instructor, and typically include an introduction to more advanced topics such as group theory or graph theory. This course fulfills the essential learning requirement for students in the Honors Program.

**Prerequisites:** Permission of instructor.

**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-GT-MA15 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**

A continuation of MATH 151 Calculus I. Topics include techniques of integration, trigonometric and hyperbolic functions, inverse, logarithmic and exponential functions, sequences, series, conic sections, polar coordinates and parametric equations.

**Prerequisites:** MATH 151.

**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-GTMA13 Credits**

Continuation of MATH 105 designed for the prospective elementary teacher. Topics include decimal numbers, probability, statistics, geometry, and the metric system.

**Prerequisites:** MATH 105.

**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 225 Computational Linear Algebra 3 Credits**

Computational approach to systems of equations, vector spaces, matrices, matrix transformations, 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, linear transformations, and systems of linear differential equations.

**Prerequisites:** MATH 152 or MATH 136.

**MATH 240 Introduction to Advanced Mathematics 4 Credits**

An introduction to writing mathematical proofs. This course is designed to provide students with a transition from computationally-based lower level classes to proof-based upper level classes. The primary goal of the course is to train students to construct and analyze rigorous mathematical proofs. Topics include introductory logic, set theory, relations, functions, induction, equivalence relations, partitions and combinatorics.

**Prerequisites:** MATH 152.

**MATH 253 Calculus III 4 Credits**

Vectors in three-dimensional space, vector functions, partial derivatives, directional derivative and multiple integrals.

**Prerequisites:** MATH 136 or MATH 152.

**MATH 260 Differential Equations 3 Credits**

Techniques of solving differential equations of order one, linear differential equations, linear equations with constant coefficients, non-homogeneous equations, variation of parameter techniques, and Laplace transform methods.

**Prerequisites:** MATH 152 or MATH 136.

**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. Strong emphasis on written and oral communication.

**Prerequisites:** MATH 205 and formal acceptance into the Teacher Education Program.

**Terms Typically Offered:** Fall, Spring.

**MATH 305 Discovering Geometry3 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 Theory3 Credits**

Classical number theory including the fundamental theorem of arithmetic, congruences, and linear diophantine equations.

**Prerequisites:** MATH 240.

**MATH 325 Linear Algebra3 Credits**

Proof-based treatment of linear algebra. Topics include vector spaces, linear transformations, eigenvalues, and orthogonality.

**Prerequisites:** MATH 225 and MATH 240.

**MATH 340 Ethnomathematics3 Credits**

Study of mathematics within cultures, especially small-scale indigenous cultures. Through the lens of culture, students can compare/contrast mathematics systems, their logical structures, and their modes of expression.

**Prerequisites:** MATH 240 or MATH 301 or permission of instructor.

**MATH 352 Advanced Calculus3 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.

**MATH 360 Methods of Applied Mathematics3 Credits**

Selection of techniques in applied mathematics of particular use to scientists and engineers. Topics include vector analysis, partial differential equations and transform techniques. Applications are stressed.

**Prerequisites:** MATH 253, and MATH 236 or MATH 260.

**MATH 361 Numerical Analysis4 Credits**

Elementary numerical analysis using the hand-held programmable calculator including Taylor's theorem, truncating errors, iteration processes, least squares methods, numerical solution of algebraic and transcendental equations, systems of equations, ordinary and partial differential equations, integral equations, interpolation, finite differences, eigenvalue problems, relaxation techniques, approximations, and error analysis.

**Prerequisites:** MATH 152 or MATH 136.

**MATH 362 Fourier Analysis3 Credits**

Introduction to continuous and discrete Fourier analysis. Topics include signals as vectors, matrices, and functions; orthogonality and correlation; expansions and transforms; Fourier series and frequency analysis; filtering, thresholding and compression; analysis of accuracy, including aliasing and convergence; Fourier and inverse Fourier transforms; discrete and inverse discrete Fourier transforms.

**Prerequisites:** MATH 152 or MATH 136.

**MATH 365 Mathematical Modeling3 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 II3 Credits**

Treatment of numerical methods used to solve problems in applied mathematics. Topics include iteration, interpolation, numerical integration and differentiation, numerical linear algebra, numerical solutions of matrix eigenvalue problems, 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.

**MATH 369 Discrete Structures I3 Credits**

Elementary logic, induction, recursion, recurrence relations, sets, combinatorics, relations, functions, graphs, trees, and elementary abstract structures.

**Prerequisites:** MATH 152 or MATH 136; and CSCI 110/CSCI 110L or CSCI 111 or CSCI 130.

**MATH 370 Discrete Structures II3 Credits**

Applications of logic, Boolean algebra and computer logic, abstract structures, coding theory, finite-state machines, and computability.

**Prerequisites:** MATH 369 or both MATH 240 and CSCI 111.

**MATH 380 History of Mathematics3 Credits**

History of mathematics from antiquity to the present with emphasis upon the development of mathematics concepts and the people involved.

**Prerequisites:** MATH 152.

**MATH 386 Geometries4 Credits**

A study of Euclidean and non-Euclidean geometries. This course examines the differences in their axiom systems and their models, and how notions in Euclidean geometry are interpreted in non-Euclidean systems.

**Prerequisites:** MATH 240.

**MATH 389 Explorations in Mathematics for Elementary Educators2 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 394 Mathematics Colloquium1 Credit**

A weekly series of talks on a wide range of contemporary mathematics will be given by local faculty and others. Students must provide written commentary on these talks.

**Prerequisites:** Permission of instructor.

**MATH 395 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**MATH 396 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**MATH 397 Structured Research1-4 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 Topology3 Credits**

Introduction to point set topology. Topics include topological spaces, metric spaces, connectedness, compactness, the separation axioms, and the Tychonoff theorem.

**Prerequisites:** MATH 310 or MATH 325 or MATH 352.

**MATH 430 Mathematical Logic3 Credits**

Introduction to the classical areas of mathematical logic (model theory, proof theory, the theory of computation, complexity theory and set theory), the relationships these sub-disciplines have with each other and their relationships to the foundations of mathematics, computational science, computer science and the philosophy of mathematics.

**Prerequisites:** MATH 240 or MATH 369.

**MATH 450 Complex Variables3 Credits**

Algebra of complex numbers, analyticity, differentiation and integration of complex functions, Cauchy's integral formulae, and series.

**Prerequisites:** MATH 240.

**MATH 452 Intro to Real Analysis I3 Credits**

Introduction to real analysis from a general metric space perspective.

Topics may include point set topology, completeness, compactness and connected sets, sequences, series, continuity, integration and sequences and series of functions.

**Prerequisites:** MATH 253 and MATH 352.

**MATH 453 Intro to Real Analysis II3 Credits**

Selected topics in advanced real analysis chosen by instructor.

**Prerequisites:** MATH 452.

**MATH 460 Advanced Linear Algebra3 Credits**

Characteristics and minimal polynomial, Cayley-Hamilton Theorem, invariant subspaces, bilinear forms, primary decomposition theorem, dual vector spaces.

**Prerequisites:** MATH 325.

**MATH 466 Methods of Applied Mathematics III3 Credits**

Exploration of advanced methods of applied mathematics with an emphasis on extending basic methods and concepts. Specific content may vary but will typically include contemporary techniques in applied mathematics, modeling and data analysis.

**Prerequisites:** MATH 366.

**MATH 484 Senior Seminar I2 Credits**

An introduction to conducting mathematical research with discussion of various research topics, including how to read and analyze articles in mathematics. Presentations and papers will be required.

**Prerequisites:** MATH 452 or MATH 490 or MATH 366 or STAT 350.

**MATH 490 Abstract Algebra I3 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.

**MATH 491 Abstract Algebra II3 Credits**

A continuation of MATH 490 Abstract Algebra I. Topics include properties of rings, subrings, ideals, quotient structures; ring homomorphisms and isomorphisms, integral domains, polynomial rings, properties of fields, subfields, field extensions, finite fields and Galois Theory.

**Prerequisites:** MATH 490.

**MATH 492 Senior Capstone3 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 Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**MATH 496 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**MATH 500 Introduction to Graduate Studies in Applied Mathematics3 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 Statistics3 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 Methods3 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 Modeling3 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 Processing3 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 Mathematics3 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 Theory3 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 Cryptography3 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 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

## Medical Lab Technician (MLTP)

**MLTP 101 Phlebotomy3 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 Phlebotomy2 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 132 Clinical Hematology and Coagulation3 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:** BIOL 209/BIOL 209L, BIOL 210/BIOL 210L, CHEM 121/CHEM 121L or CHEM 131/CHEM 131L, MLTP 101, and MLTP 102.

**Corequisites:** MLTP 132L, MLTP 141/MLTP 141L, MLTP 232, MLTP 242/MLTP 242L, and MLTP 275.

**MLTP 132L Clinical Hematology and Coagulation Lab1 Credit**

Lab component required for MLTP 132.

**Prerequisites:** BIOL 209/BIOL 209L, BIOL 210/BIOL 210L, CHEM 121/CHEM 121L or CHEM 131/CHEM 131L, MLTP 101, and MLTP 102.

**Corequisites:** MLTP 132, MLTP 141/MLTP 141L, MLTP 232, MLTP 242/MLTP 242L, and MLTP 275.

**Fees:** Yes.

**MLTP 138 Clinical Immunology2 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:** BIOL 209/BIOL 209L, BIOL 210/BIOL 210L, CHEM 121/CHEM 121L or CHEM 131/CHEM 131L, MLTP 101, and MLTP 102.

**Corequisites:** MLTP 138L, MLTP 142/MLTP 142L, and MLTP 231/MLTP 231L.

**MLTP 138L Clinical Immunology Lab1 Credit**

Lab component required for MLTP 138.

**Prerequisites:** BIOL 209/BIOL 209L, BIOL 210/BIOL 210L, CHEM 121/CHEM 121L or CHEM 131/CHEM 131L, MLTP 101, and MLTP 102.

**Corequisites:** MLTP 138, MLTP 142/MLTP 142L, and MLTP 231/MLTP 231L.

**Fees:** Yes.

**MLTP 141 Clinical Immunohematology2 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:** BIOL 209/BIOL 209L, BIOL 210/BIOL 210L, CHEM 121/CHEM 121L or CHEM 131/CHEM 131L, MLTP 101, MLTP 102, MLTP 138/MLTP 138L, MLTP 142/MLTP 142L, and MLTP 231/MLTP 231L.

**Corequisites:** MLTP 141L, MLTP 132/MLTP 132L, MLTP 232, MLTP 242/MLTP 242L, and MLTP 275.

**MLTP 141L Clinical Immunohematology Lab1 Credit**

Lab component required for MLTP 141.

**Prerequisites:** BIOL 209/BIOL 209L, BIOL 210/BIOL 210L, CHEM 121/CHEM 121L or CHEM 131/CHEM 131L, MLTP 101, MLTP 102, MLTP 138/MLTP 138L, MLTP 142/MLTP 142L, and MLTP 231/MLTP 231L.

**Corequisites:** MLTP 141, MLTP 132/MLTP 132L, MLTP 232, MLTP 242/MLTP 242L, and MLTP 275.

**Fees:** Yes.

**MLTP 142 Clinical Microscopy2 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:** BIOL 209/BIOL 209L, BIOL 210/BIOL 210L, CHEM 121/CHEM 121L or CHEM 131/CHEM 131L, MLTP 101, and MLTP 102.

**Corequisites:** MLTP 138/MLTP 138L, MLTP 142L, and MLTP 231/MLTP 231L.



**MLTP 142L Clinical Microscopy Lab1 Credit**

Lab component required for MLTP 142.

**Prerequisites:** BIOL 209/BIOL 209L, BIOL 210/BIOL 210L, CHEM 121/CHEM 121L or CHEM 131/CHEM 131L, MLTP 101, and MLTP 102.

**Corequisites:** MLTP 138/MLTP 138L, MLTP 142, and MLTP 231/MLTP 231L.

**Fees:** Yes.

**MLTP 180 Applied Immunohematology3 Credits**

Clinical laboratory experience in the principles and procedures of immunohematology at an affiliated site. It is an 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:** MLTP 132/MLTP 132L, MLTP 141/MLTP 141L, MLTP 232, MLTP 242/MLTP 242L, and MLTP 275,

**Corequisites:** MLTP 182, MLTP 250, MLTP 252, and MLTP 253.

**MLTP 182 Applied Hematology and Body Fluids4 Credits**

Clinical laboratory experience in the principles and procedures of hematology, hemostasis, urinalysis and body fluids at an affiliated site. It is an on-line 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:** MLTP 132/MLTP 132L, MLTP 141/MLTP 141L, MLTP 232, MLTP 242/MLTP 242L, and MLTP 275.

**Corequisites:** MLTP 180, MLTP 250, MLTP 252, and MLTP 253.

**MLTP 195 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**MLTP 231 Clinical Microbiology I3 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:** BIOL 209/BIOL 209L, BIOL 210/BIOL 210L, CHEM 121/CHEM 121L or CHEM 131/CHEM 131L, MLTP 101, and MLTP 102.

**Corequisites:** MLTP 138/MLTP 138L, MLTP 142/MLTP 142L, and MLTP 231L.

**MLTP 231L Clinical Microbiology I Lab1 Credit**

Lab component required for MLTP 231.

**Prerequisites:** BIOL 209/BIOL 209L, BIOL 210/BIOL 210L, CHEM 121/CHEM 121L or CHEM 131/CHEM 131L, MLTP 101, and MLTP 102.

**Corequisites:** MLTP 138/MLTP 138L, MLTP 142/MLTP 142L, and MLTP 231.

**Fees:** Yes.

**MLTP 232 Clinical Microbiology II3 Credits**

Introduction to basic identification and classification of medically significant mycobacteria and other bacteria with unusual growth requirements, fungi, parasites and viruses. Sample collection, processing, isolation methods, and immunologic diagnosis and treatment. Epidemiology and pathogenesis of associated diseases are explored.

**Prerequisites:** MLTP 142/MLTP 142L, and MLTP 231/MLTP 231L.

**Corequisites:** MLTP 132/MLTP 132L, MLTP 141/MLTP 141L, MLTP 242/MLTP 242L, and MLTP 275.

**MLTP 242 Clinical Chemistry3 Credits**

Application of human pathophysiology and how it relates 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:** BIOL 209/BIOL 209L, BIOL 210/BIOL 210L, CHEM 121/CHEM 121L or CHEM 131/CHEM 131L, MLTP 101, MLTP 102, MLTP 138/MLTP 138L, MLTP 142/MLTP 142L, MLTP 231/MLTP 231L.

**Corequisites:** MLTP 242L, MLTP 132/MLTP 132L, MLTP 141/MLTP 141L, MLTP 232, and MLTP 275.

**MLTP 242L Clinical Chemistry Lab1 Credit**

Lab component required for MLTP 242.

**Prerequisites:** BIOL 209/BIOL 209L, BIOL 210/BIOL 210L, CHEM 121/CHEM 121L or CHEM 131/CHEM 131L, MLTP 101, MLTP 102, MLTP 138/MLTP 138L, MLTP 142/MLTP 142L, and MLTP 231/MLTP 231L.

**Corequisites:** MLTP 242, MLTP 132/MLTP 132L, MLTP 141/MLTP 141L, MLTP 232, and MLTP 275.

**Fees:** Yes.

**MLTP 250 Applied Chemistry and Serology2 Credits**

Clinical laboratory experience in the principles and procedures of chemistry and serology at an affiliated site. It is an on-line 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:** MLTP 132/MLTP 132L, MLTP 141/MLTP 141L, MLTP 232, MLTP 242/MLTP 242L, and MLTP 275.

**Corequisites:** MLTP 180, MLTP 182, MLTP 252, MLTP 253.

**MLTP 252 Applied Microbiology4 Credits**

Clinical laboratory experience in the principles and procedures of clinical microbiology at an affiliated site. It is an on-line 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:** MLTP 132/MLTP 132L, MLTP 141/MLTP 141L, MLTP 232, MLTP 242/MLTP 242L, and MLTP 275.

**Corequisites:** MLTP 180, MLTP 182, MLTP 250, and MLTP 253.

**MLTP 253 Certification Exam Review1 Credit**

Review of key principles and content in preparation for national certification examination.

**Prerequisites:** MLTP 132/MLTP 132L, MLTP 141/MLTP 141L, MLTP 232, MLTP 242/MLTP 242L, and MLTP 275.

**Corequisites:** MLTP 180, MLTP 182, MLTP 250, MLTP 252.

**MLTP 275 Capstone Seminar1 Credit**

Preparation for clinical internships. Conflict resolution, communication skills, professional behavior in the workplace, resume writing and interview skills.

**Prerequisites:** BIOL 209/BIOL 209L, BIOL 210/BIOL 210L, CHEM 121/CHEM 121L or CHEM 131/CHEM 131L, MLTP 101, MLTP 102, MLTP 138/MLTP 138L, MLTP 142/MLTP 142L, and MLTP 231/MLTP 231L.

**Corequisites:** MLTP 132/MLTP 132L, MLTP 141/MLTP 141L, MLTP 232, and MLTP 242/MLTP 242L.

# Medical Office Assistant (MOAP)

## 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.

## MOAP 111 Introduction to Medical Assisting 3 Credits

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 and the Health Information Portability and Accountability Act (HIPAA), and principles of law and ethics in health care.

**Terms Typically Offered:** Fall.

## 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:** Spring.

## MOAP 133 Basic Medical Sciences I 4 Credits

Organization and function of the human body. Introductory anatomy, physiology, and pathophysiology of integumentary, musculoskeletal, cardiovascular, blood, lymphatic and immune, urinary, and respiratory. Health problems, illnesses, diagnostic tests, drug therapy and treatment common in the ambulatory patient care setting.

**Terms Typically Offered:** Fall.

## MOAP 135 Basic Medical Sciences II 4 Credits

Organization and function of male and female reproductive systems, musculoskeletal, and eyes, ears, nose and throat. Implications in pediatrics, geriatrics and nutrition are reviewed. Health problems, illnesses, diagnostic tests, drug therapy and treatment common in the ambulatory patient care setting.

**Terms Typically Offered:** Spring.

## MOAP 136 Introduction to Clinical Skills 2 Credits

Principles and procedures. 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.

## MOAP 138 Medical Assisting Laboratory Skills 4 Credits

Laboratory skills and techniques for collection, handling, examination and testing of laboratory specimens often encountered in the ambulatory care setting. Emphasizes hands-on experience.

**Prerequisites:** MOAP 111 and MOAP 136.

**Terms Typically Offered:** Spring.

## MOAP 140 Medical Assisting Clinical Skills 4 Credits

Principles and procedures. 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:** Spring.

## MOAP 147 Medical Terminology 4 Credits

Basic medical terminology as applied to major systems of the body and related diseases. Includes special applications and related to medical practice with emphasis on spelling.

**Terms Typically Offered:** Fall, Spring, Summer.

## 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. Information regarding the measurement of medications, dosage calculations, routes of administration, and commonly prescribed drugs in the medical office is provided.

**Prerequisites:** MOAP 111.

**Terms Typically Offered:** Spring.

## MOAP 183 Medical Assistant Internship 5 Credits

Supervised placement in contracted facility for guided experience in application of knowledge and skill acquired in the classroom. Business and clinical procedures. Positions are non-paid due to accreditation requirements. Permission of program coordinator required to begin internship.

## MOAP 189 Review for Medical Assistant National Exam 1 Credit

Preparation and practice for a national registration examination.

**Prerequisites:** Permission of Program Director.

## MOAP 196 Topics: 1-3 Credits

Course may be taken multiple times up to maximum of 15 credit hours.

# Multimedia Animation (MGDA)

## MGDA 105 Creative Development 3 Credits

Hands-on strategies for developing, stimulating, and maintaining creativity to accomplish professional and personal goals.

## MGDA 120 Digital Design Tools 3 Credits

Concentrates on the capabilities of digital cameras, raster photo-editing software, vector drawing software, and digital painting software for use in 3D animation. Explores how these image tools, combined with basic techniques, can be applied to create digital images, graphics, and videos.

## MGDA 149 Digital Drawing 3 Credits

Explore foundational skills necessary to create characters for use in computer-based 3D animation courses. Learn to draw human and non-human forms first using pencil and paper, then apply those skills with computer graphic design software. Character development, anatomy, dynamic movement and action, and scenery emphasized.

## MGDA 150 Previsualization 3 Credits

Introduces steps followed by professional media content producers and 3D animators/VR designers for producing preproduction material in a digital environment. Previsualization techniques include scriptwriting for 3D and VR experiences; plus traditional storyboarding, and virtual reality camera/actor layout blocking methods.

## MGDA 153 Beginning 3D Animation 3 Credits

Encompasses all major aspects of creating 3D characters using animation software. Use of developed characters to learn how to animate for personality.

## MGDA 163 Audio Design 3 Credits

Explores how audio recording principles enhance multimedia and 3D animated productions.

**MGDA 164 Digital Video Editing3 Credits**

Introduction to digital non-linear video editing as a 3D Animation tool. Edit, manipulate and compress/export video. Assembly techniques including media management, editing tools, titles, and motion control; transitions and filters, and special effects are explored.

**MGDA 196 Topics:1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**MGDA 225 3D Character Design3 Credits**

Explores advanced aspects of creating 3D characters on the computer, with an emphasis on digital sculpture techniques. Also examine facial animation, lip synchronization, scene design, and lighting setups.

**MGDA 229 Animation History3 Credits**

Overview of the advent and evolution of animation from its earliest origins through the 1990s. Examine important individuals and studios in the animation field. View, analyze, and peer critique animation examples. Social, cultural, artistic movements, and influences on contemporary animation styles and animation techniques are analyzed.

**MGDA 250 3D Character Rigging3 Credits**

Explore advanced character rigging features for 3D models. Understand adding controls to work with joints, forward kinematic (FK) and inverse kinematic (IK) blending, facial control using phonemes, eye movement, muscle systems, and skinning.

**MGDA 265 Digital Compositing3 Credits**

Provides fundamental techniques for creating motion graphics, green screen composites, advanced motion tracking data, modifying 3D animation multipass renders, and integration with 3D software.

**MGDA 268 Freelancing for Creatives3 Credits**

Introduction to freelancing opportunities for people in creative fields. Provides an overview about getting started, networking, financing, law, insurance, intellectual property rights, government regulations, time management, record keeping, taxes, self-promotion, and work-life balance.

**MGDA 270 Advanced 3D Animation3 Credits**

Investigate advanced 3D animation concepts that include workflow, advanced scene design, lighting, cameras, keyframing, textures, and rendering.

**MGDA 285 3D Animation Capstone3 Credits**

Develop and produce a short-form 3D animated movie using a production workflow and producing techniques. Explore the production process from conceptualization through finalization.

**MGDA 296 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

## Music/Academic (MUSA)

**MUSA 101 Concert Attendance0 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 Technology1 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 Theory3 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-Introduction3 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 Concepts3 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 I2 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 II2 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 Majors2 Credits****MUSA 121 Class Piano for Non Majors2 Credits**

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 theatre) majors or minors. Introductory piano proficiency (rudimentary note reading, music vocabulary, technique, aural skills, theory, and creative application of musical skills).

**MUSA 122 Class Guitar2 Credits**

Introduction to guitar for all students, including performance in various styles, reading notation, and technical skills.

**Terms Typically Offered:** Fall.

**MUSA 129 Singer's Diction I: English and Italian1 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 I2 Credits**

Introduction of basic keyboard skills including scales, chords, transposition, harmonization, choir warmups, improvisation, and sightreading. Recommended for music majors, music minors and music theatre majors needing piano proficiency skills required by their program of study. Students move at their own pace completing specified sequenced skills.

**MUSA 131 Class Piano II2 Credits**

Continuation of keyboard skills learned in MUSA 130 including experience with arpeggios, chord inversions, different accompaniment styles and ensemble experiences. Students move at their own pace completing specified sequence skills.

**Prerequisites:** MUSA 130 or permission of instructor.

**MUSA 137 Class Voice1 Credit**

Fundamentals of singing, interpretation, phonetics, language (diction for singers), and solo repertoire for beginning voice students.

**MUSA 214 Theory III - Chromatic Concepts3 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 sight-singing.

**Prerequisites:** MUSA 115 and MUSA 117.

**Terms Typically Offered:** Fall, Spring.

**MUSA 215 Theory IV - Twentieth Century Form and Analysis3 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-GTAH13 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 229 Singer's Diction II: German and French1 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 III2 Credits**

Continuation of concepts covered in MUSA 130 and MUSA 131 including minor scales, chords, transposition, playing from lead sheets, improvisation, basic jazz keyboarding skills, sight-reading.

**Prerequisites:** MUSA 130 and MUSA 131.

**Terms Typically Offered:** Fall.

**MUSA 231 Class Piano IV2 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, creating and playing accompaniments for simple pieces.

**Prerequisites:** MUSA 230 or permission of instructor.

**MUSA 232 String Techniques and Materials2 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 Materials2 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 Materials2 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 Materials2 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 Education2 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 Conducting2 Credits**

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 Improvisation1 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 Arranging1 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-GTAH13 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-GTAH13 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 Improvisation1 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 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**MUSA 302 Keyboard Literature I3 Credits**

Survey of keyboard literature from Elizabethan music through Mendelssohn.

**Prerequisites:** MUSA 230 or permission of instructor, MUSL 230.

**MUSA 303 Symphonic Literature3 Credits**

Survey of symphonic music from early instrumental to present-day compositions. Emphasis on composers' styles, orchestras, conductors; chamber orchestra music also included.

**Prerequisites:** MUSA 214.

**Terms Typically Offered:** Spring.

**MUSA 304 Keyboard Literature II3 Credits**

Survey of keyboard literature from Chopin to the present day.

**Prerequisites:** MUSA 231, MUSL 230, or permission of instructor.

**MUSA 310 Accompanying Techniques2 Credits**

Development of accompanying proficiency, including listening skills, form, and analysis of the music to be performed; rehearsing techniques; accompanying repertoire for vocal; instrumental; and ensemble playing.

**Prerequisites:** MUSA 214, or permission of instructor.

**MUSA 311 Advanced Music Technology2 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 Music2 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 Arranging2 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 Literature3 Credits**

Follows 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.

**MUSA 319 Choral Literature3 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 or permission of the instructor.

**MUSA 326 Music History and Literature I3 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 II3 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 Materials3 Credits**

For Music Education Majors: The course is designed for standards-based curriculum for elementary and general music classes. Weekly laboratory experiences focus on course content dealing with teaching competencies in elementary and general music. Also addresses how to teach literacy in the music classroom. Includes 30 hours of field experience.

**Prerequisites:** MUSA 240.

**Terms Typically Offered:** Fall.

**MUSA 350A Advanced Conducting: Choral2 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: Instrumental2 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 Marketing2 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 Creatives2 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 Management2 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 Improvisation2 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 Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**MUSA 396 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**MUSA 410 Vocal Pedagogy3 Credits**

Physiology of the human vocal mechanism, various teaching styles, vocal problems related to various age groups, and vocal repertoire pertinent to all age groups and levels of development.

**Prerequisites:** MUSA 137 or MUSL 137.

**Terms Typically Offered:** Spring.

**MUSA 411 Piano Pedagogy3 Credits**

Introduction to the field of piano teaching and learning/teaching theories with application to piano teaching. Survey of methods and literature. Instructional techniques for group and individual lesson settings.

**Prerequisites:** MUSA 231, MUSL 230, or permission of instructor.

**MUSA 426 The Music of World Cultures2 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 Materials3 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 Materials3 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: Choral2 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 350B if not completed.

**MUSA 442B Teaching Special Ensembles: Instrumental2 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 Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**MUSA 496 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**MUSA 499 Internship1-4 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)

**MUSL 130 Piano1 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.

**MUSL 131 Guitar1 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.

**MUSL 132 Strings1 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.

**MUSL 133 Woodwinds1 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.

**MUSL 134 Brass1 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.

**MUSL 135 Percussion1 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.

**MUSL 136 Electronic Instruments1 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.

**MUSL 137 Voice1 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.



**MUSL 332 Strings1 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.

**MUSL 333 Woodwinds1 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.

**MUSL 334 Brass1 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.

**MUSL 335 Percussion1 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.

**MUSL 336 Electronic Instruments1 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.

**MUSL 337 Voice1 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.

**MUSL 338 Composition1 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.

**MUSL 339 Jazz/Commercial1 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.

**MUSL 340 Instrumental Pedagogy and Literature1 Credit**

Private one-on-one instruction of instrumental pedagogy and literature for woodwinds, brass, 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.

**MUSL 350 Conducting1 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.

**MUSL 430 Piano1 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.

**MUSL 431 Guitar1 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.

**MUSL 432 Strings1 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.

**MUSL 433 Woodwinds1 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.



**MUSL 434 Brass1 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.

**MUSL 435 Percussion1 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.

**MUSL 436 Electronic Instruments1 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.

**MUSL 437 Voice1 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.

**MUSL 438 Composition1 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.

**MUSL 439 Jazz/Commercial1 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.

**MUSL 450 Conducting1-2 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.

## Music/Performing (MUSP)

**MUSP 140 Wind Symphony1 Credit**

A 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.

Course may be taken 2 times for credit.

**MUSP 141 Symphony Orchestra1 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 144 Jazz Ensemble1 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 145 Chamber Ensembles1 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 147 Marching Band1 Credit**

Rehearsal and presentation of musical and physical performance proficiencies. Specific skills associated with self-discipline, leadership, and individual and ensemble performance are developed. 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 156 Vocal Arts Ensemble1 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 157 Tenor/Bass Choir1 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 158 Soprano/Alto Choir1 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 159 Vocal Chords1 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 162 Commercial Ensemble1 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 240 Wind Symphony1 Credit**

A 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.

Course may be taken 2 times for credit.

**MUSP 241 Symphony Orchestra1 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 244 Jazz Ensemble1 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 Ensembles1 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 Band1 Credit**

Rehearsal and presentation of musical and physical performance proficiencies. Specific skills associated with self-discipline, leadership, and individual and ensemble performance are developed. 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 Ensemble1 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 Choir1 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 Choir1 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 Chords1 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 Ensemble1 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 Recital1 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. Required for Music Performance majors. Must include scholarly program notes covering historical aspects, analytical issues, and/or performance considerations of the recital repertory.

**Corequisites:** 1 credit of MUSL 300-level.

**MUSP 340 Wind Symphony1 Credit**

A 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.

Course may be taken 2 times for credit.

**MUSP 341 Symphony Orchestra1 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 344 Jazz Ensemble1 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 Ensembles1 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 Band1 Credit**

Rehearsal and presentation of musical and physical performance proficiencies. Specific skills associated with self-discipline, leadership, and individual and ensemble performance are developed. 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 Ensemble1 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 Choir1 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 Choir1 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 Chords1 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 Ensemble1 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 Workshop1 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 Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**MUSP 396 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**MUSP 420 Senior Recital/Presentation1 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 440 Wind Symphony1 Credit**

A 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.

Course may be taken 4 times for credit.

**MUSP 441 Symphony Orchestra1 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 444 Jazz Ensemble1 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 Ensembles1 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 Band1 Credit**

Rehearsal and presentation of musical and physical performance proficiencies. Specific skills associated with self-discipline, leadership, and individual and ensemble performance are developed. 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 Ensemble1 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 Choir1 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 Choir1 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 Chords1 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 Ensemble1 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 Scenes1 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 Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**MUSP 496 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

## Nurse Aide Training (NURA)

**NURA 101 Nurse Aide Healthcare Skills4 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, patient/resident rights addressed.

**Fees:** Yes.

**NURA 170 Nurse Aide Clinical Experience1 Credit**

Applies 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.

**NURA 196 Topics:1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

## Nursing (NURS)

**NURS 101 Pharmacology Calculations1 Credit**

Course introduces the concepts and techniques of dosage calculations and medication administration by a variety of 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.

**NURS 106 Adult Concepts I3 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.

**NURS 106L Adult Concepts I Laboratory2 Credits**

Lab component required for NURS 106.

**Prerequisites:** Admission into the Practical Nursing certificate program.

**Corequisites:** NURS 101, NURS 106, NURS 107/NURS 107L, and NURS 112.

**Fees:** Yes.

**NURS 107 Foundations of Nursing3 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.

**NURS 107L Foundations of Nursing Laboratory3 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.

**Fees:** Yes.

**NURS 109 Introduction to Mental Health2 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.

**NURS 109L Introduction to Mental Health Laboratory1 Credit**

Lab component required for NURS 109.

**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.

**NURS 112 Basic Concepts of Pharmacology2 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.

**NURS 117 Obstetrics and Pediatrics4 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.

**NURS 117L Obstetrics and Pediatrics Laboratory2 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.

**NURS 156 Socialization into Practical Nursing2 Credits**

Examination of legal and ethical responsibilities of the practical nurse. Emphasis is given to the Colorado Nurse Practice Act, portfolio building, and preparing for the NCLEX PN exam. Job seeking skills are discussed.

**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.

**NURS 172 Adult Concepts II3 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.

**NURS 172L Adult Concepts II Lab3 Credits**

Lab component required for NURS 172.

**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.

**Fees:** Yes.

**NURS 200 LPN to RN Role Transition1 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 13 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 Laboratory2 Credits**

Lab component required for NURS 206.

**Corequisites:** NURS 206 and NURS 288.

**Fees:** Yes.

**NURS 210 Nursing Care of Complex Obstetrical and Pediatric Clients3 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 Laboratory1 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.

**Fees:** Yes.

**NURS 211 Nursing Care of the Psychiatric Client3 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 Laboratory1 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.

**Fees:** Yes.

**NURS 216 Advanced Concepts of Medical Surgical Nursing II2 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 Laboratory3 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.

**Fees:** Yes.

**NURS 217 Leadership for Professional Nursing Practice2 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 Health2 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.

**NURS 244L Introduction to Adult Concepts of Health Laboratory2 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.

**NURS 246 Pharmacological Concepts I3 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.

**NURS 247 Fundamentals of Nursing3 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.

**NURS 247L Fundamentals of Nursing Laboratory2 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.

**NURS 248 Adult Concepts of Health I3 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 249, and NURS 250/NURS 250L.

**Terms Typically Offered:** Spring.

**NURS 248L Adult Concepts of Health I Laboratory3 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 249, and NURS 250/NURS 250L.

**Terms Typically Offered:** Spring.

**NURS 249 Pharmacological Concepts II3 Credits**

Integration of concepts in pharmacology with a focus on high risk medications, drug calculations, and teaching.

**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.

**NURS 250 Health Assessment for Nurses3 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 249, and NURS 250L.

**Terms Typically Offered:** Spring.

**NURS 250L Health Assessment for Nurses Laboratory1 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 249, and NURS 250.

**Terms Typically Offered:** Spring.

**NURS 251 Adult Concepts of Health II3 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 249, and NURS 250/NURS 250L.

**Corequisites:** NURS 251L, and NURS 253/NURS 253L.

**Terms Typically Offered:** Fall.

**NURS 251L Adult Concepts of Health II Laboratory3 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 249, and NURS 250/NURS 250L.

**Corequisites:** NURS 251, and NURS 253/NURS 253L.

**Terms Typically Offered:** Fall.

**NURS 252 Mental Health Concepts in Nursing2 Credits**

Exploration of psychosocial concepts with a focus on maintaining mental health of the community, individual, and family.

**Prerequisites:** NURS 251, NURS 251L, NURS 253, and NURS 253L.

**Corequisites:** NURS 252L, NURS 255, NURS 255L, NURS 256, and NURS 256L.

**Terms Typically Offered:** Spring.

**NURS 252L Mental Health Concepts in Nursing Laboratory2 Credits**

Exploration of psychosocial concepts with a focus on maintaining mental health of the community, individual, and family.

**Prerequisites:** NURS 251, NURS 251L, NURS 253, and NURS 253L.

**Corequisites:** NURS 252, NURS 255, NURS 255L, NURS 256, and NURS 256L.

**Terms Typically Offered:** Spring.

**NURS 253 Family Nursing Obstetrics and Pediatrics4 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 249, and NURS 250/NURS 250L.

**Corequisites:** NURS 251/NURS 251L, and NURS 253L.

**Terms Typically Offered:** Fall.

**NURS 253L Family Nursing Obstetrics and Pediatrics Laboratory2 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 249, and NURS 250/NURS 250L.

**Corequisites:** NURS 251/NURS 251L, and NURS 253.

**Terms Typically Offered:** Fall.

**NURS 255 Adult Concepts of Health III3 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 252/NURS 252L, NURS 255L, and NURS 256/NURS 256L.

**Terms Typically Offered:** Spring.

**NURS 255L Adult Concepts of Health III Laboratory3 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, NURS 253, and NURS 253L.

**Corequisites:** NURS 252, NURS 252L, NURS 255, NURS 256, and NURS 256L.

**Terms Typically Offered:** Spring.

**NURS 256 Capstone1 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 252/NURS 252L, NURS 255/NURS 255L, and NURS 256L.

**Terms Typically Offered:** Spring.

**NURS 256L Capstone Laboratory2 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, NURS 253, and NURS 253L.

**Corequisites:** NURS 252, NURS 252L, NURS 255, NURS 255L, and NURS 256.

**Terms Typically Offered:** Spring.

**NURS 286 Advanced Pharmacology for Nurses2 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 Nursing2 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.

**Fees:** Yes.

**NURS 289 Capstone: Comprehensive Nursing Internship2 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 Role3 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 Promotion3 Credits**  
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 prevention over the life span.

**Prerequisites:** Admission to the LPN-BSN program.

**Corequisites:** NURS 318L, NURS 329/NURS 329L, NURS 333, and NURS 400.

**NURS 318L Health Assessment and Promotion Laboratory1 Credit**  
Application of techniques necessary for completing health assessments across the life span. Includes history taking, physical assessment skills, and principles of health promotion. Apply information to develop appropriate interventions designed to assist clients with health promotion and life style changes.

**Prerequisites:** Admission to the LPN-BSN Program.

**Corequisites:** NURS 318, NURS 329/NURS 329L, NURS 333, and NURS 400.

**Fees:** Yes.

**NURS 320 Health Assessment and Promotion for the Nurse3 Credits**  
Apply knowledge necessary for completing a child, adult, and geriatric client health assessment. Use history taking and physical assessment skills to develop appropriate interventions designed to assist clients with health promotion and lifestyle changes. Apply principles of health promotion through the life span in a variety of settings.

**Prerequisites:** Admission to the RN-BSN Program or practicing RN with current license and permission of instructor.

**Corequisites:** NURS 320L.

**NURS 320L Health Assessment and Promotion for the Nurse Laboratory1 Credit**

Application of knowledge necessary for completing a child, adult, and geriatric client health assessment. Use of history-taking and physical assessment skills to develop appropriate interventions designed to assist clients with health promotion and lifestyle changes. Application of principles of health promotion through the lifespan in a variety of settings.

**Prerequisites:** Admission into RN-BSN program or practicing RN with current license and permission of instructor.

**Corequisites:** NURS 320.

**NURS 329 Advanced Adult Health I4 Credits**  
Exploration 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.

**Prerequisites:** Admission into the LPN-BSN Program.

**Corequisites:** NURS 318/NURS 318L, NURS 329L, NURS 333, and NURS 400.

**Terms Typically Offered:** Spring.

**NURS 329L Advanced Adult Health I Laboratory3 Credits**  
Lab component required for NURS 329.

**Prerequisites:** Admission to the LPN-BSN program.

**Corequisites:** NURS 318/NURS 318L, NURS 329, NURS 333, and NURS 400.

**Fees:** Yes.

**NURS 333 Basic Concepts of Pharmacology II2 Credits**  
Exploration of advanced concepts of pharmacology within nursing with an emphasis on nursing process, drug doses, calculations, relevant assessments, and patient teaching.

**Prerequisites:** Admission into the LPN-BSN program.

**Corequisites:** NURS 318/NURS 318L, NURS 329/NURS 329L, and NURS 400.

**Terms Typically Offered:** Spring.

**NURS 350 Health Assessment Across the Lifespan3 Credits**  
Introduction to the basic skills of history taking and physical assessment of individuals through the lifespan. Emphasis on knowledge and skills necessary for conducting a systematic or focused health assessment and determining areas in which to implement health promotion activities.

**Prerequisites:** Admission to the BSN program. Foundation courses required. See program sheet for details.

**Corequisites:** NURS 350L, NURS 353/NURS 353L, NURS 370, and NURS 372.

**NURS 350L Health Assessment Across the Lifespan Laboratory1 Credit**  
Application of knowledge and clinical skills in obtaining a health history and performing a physical examination of individuals across the lifespan. Focus is on the practice and refinement of psychomotor, communication, and critical thinking skills with an emphasis on privacy, confidentiality, and safety.

**Prerequisites:** Admission to the BSN program. Foundation courses required. See program sheet for details.

**Corequisites:** NURS 350, NURS 353/NURS 353L, NURS 370, and NURS 372.

**Fees:** Yes.



**NURS 353 Foundation of Nursing Practice4 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 safety, basic nursing care, assessment, communication, documentation, and quality care.

**Prerequisites:** Admission to the BSN program.

**Corequisites:** NURS 350/NURS 350L, NURS 353L, NURS 370, and NURS 372.

**NURS 353L Foundations of Nursing Practice Laboratory3 Credits**

Application of fundamental concepts and evidenced-based nursing skills in settings that provide safe learning opportunities. Sites include clinical labs, simulation labs, and an array of local healthcare facilities.

**Prerequisites:** Admission to the BSN program.

**Corequisites:** NURS 350/NURS 350L, NURS 353, NURS 370, and NURS 372.

**Fees:** Yes.

**NURS 370 Pharmacology for Nurses I3 Credits**

Introduction to drug therapy including specific drug classifications, terminology, theories and techniques of safe administration. Focus on nursing considerations, utilizing the nursing process, and becoming proficient at medication calculations. Major content includes the basic concepts of pharmacology, commonly prescribed drugs, drug effects on body tissues, responses to drug therapy, and principles of therapy in various circumstances and populations.

**Prerequisites:** Admission to the BSN program. Foundation courses required. See program sheet for details.

**Corequisites:** NURS 350/NURS 350L, NURS 353/NURS 353L, and NURS 372.

**NURS 372 Professional Development I: Nursing Theory, Roles and Ethics2 Credits**

Introduction to knowledge, skills, and attitudes related to nursing practice. Emphasis on history of professional nursing, nursing theory, legal, ethical, and safety issues. Exploration of principles of communication, time management, and critical thinking as they relate to the professional nurse.

**Prerequisites:** Admission to the BSN program.

**Corequisites:** NURS 350/NURS 350L, NURS 353/NURS 353L, and NURS 370.

**NURS 373 Acute and Chronic Illness I4 Credits**

Application of the nursing process in care of individuals and families experiencing deviations from usual levels of wellness. Exploration of pathophysiology of moderate intensity and relative stability. Emphasis on identification of coping mechanisms of individuals and families to assist in health recovery, health promotion, and the adoption of strategies for illness prevention.

**Prerequisites:** Admission to the BSN program.

**Corequisites:** NURS 373L, NURS 388/NURS 388L, and NURS 394.

**NURS 373L Acute and Chronic Illness I Clinical4 Credits**

Application of nursing process in care of individuals and families in acute and chronic health care settings. Emphasis on patient safety, health promotion, multi-disciplinary health care and the uniqueness of individual response to disease. Development of essential skills of assessment, problem identification, goal setting, application of interventions, evaluation of outcomes, cultural sensitivity, and critical thinking skills.

**Prerequisites:** Admission to the BSN program.

**Corequisites:** NURS 373, NURS 388/NURS 388L, and NURS 394.

**Terms Typically Offered:** Fall, Spring.

**NURS 388 Mental Health Nursing3 Credits**

Introduction to patient-centered, culturally sensitive approach to needs of individuals, families, and groups experiencing alterations in mental health across the lifespan. Emphasis on theoretical knowledge and evidence-based practice to promote, maintain and restore mental and emotional health. Exploration of use of self as a therapeutic tool, principles of therapeutic relationships and communication and a knowledge-base of psychopathology.

**Prerequisites:** Admission to the BSN program.

**Corequisites:** NURS 373/NURS 373L, and NURS 388L and NURS 394.

**NURS 388L Mental Health Nursing Clinical2 Credits**

Application of theory in care of clients with a wide-range of psychiatric and/or mental health disorders across the lifespan. Emphasis on the nurse's role in various treatment settings and current treatment modalities. Development of proficiency in mental health practice with diverse populations. Emphasis on therapeutic use of self with individuals and groups in a variety of community-based settings.

**Prerequisites:** Admission to the BSN program.

**Corequisites:** NURS 373/NURS 373L, and NURS 388 and NURS 394.

**Fees:** Yes.

**NURS 394 Nursing Research: An Evidence-Based Practice2 Credits**

Exploration of 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 literature review and an evidence-based practice proposal to investigate nursing questions and outcomes. Emphasis on research as a basis for assessment of outcomes 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.

**NURS 395 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**NURS 396 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**NURS 400 Nursing Research3 Credits**

Exploration of evidence-based practices related to outcomes within the health care setting. Research questions relevant to clinical practice are developed and pursued.

**Prerequisites:** Admission to the LPN-BSN program.

**Corequisites:** NURS 318/NURS 318L, NURS 329/NURS 329L, and NURS 333.

**NURS 408 Health Information Systems3 Credits**

Explores the use of information systems in health care and nursing practice. Examines current trends and issues in using, designing, and implementing health care information systems, healthcare information management, decision support and knowledge management applications in the context of challenges facing healthcare organizations today. Explores legal and ethical issues as related to the protection of the privacy, confidentiality, and security of information in health care environments, utility of wide array of personal health information management and social networking tools in communicating health-related information.

**Prerequisites:** RN degree at the associate or diploma level; permission of instructor; application in to HITS program.

**NURS 409 Quality Assessment and Improvement in Health Care Settings3 Credits**

Review of outcomes-based quality assessment and improvement methods. Focuses on techniques of measuring quality of care, customer satisfaction, and safety. Implementation of quality management programs, and creating a culture supporting adherence to best practices and standards.

**Prerequisites:** Permission of instructor.

**NURS 410 Population Health Nursing3 Credits**

Exploration of theoretical basis for community and population health and the role of the nurse. Exploration of 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.

**NURS 410L Population Health Nursing Laboratory1 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 Care2 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 Interface2 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 Illness3 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 Health3 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 Health3 Credits**

Approaches to care and finance in the community care setting. Application of population risk reduction used to develop nursing interventions for high risk aggregates.

**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.

**NURS 421L Population Health Laboratory2 Credits**

Lab component required for NURS 421.

**Prerequisites:** NURS 318/NURS 318L, NURS 329/NURS 329L, NURS 333, and NURS 400.

**Corequisites:** NURS 421, and NURS 427/NURS 427L.

**Fees:** Yes.

**NURS 426 Nursing Research and Evidence-Based Practice3 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 Health3 Credits**

Exploration of psychosocial integrity with emphasis on 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.

**Prerequisites:** NURS 318/NURS 318L, NURS 329/NURS 329L, NURS 333, and NURS 400.

**Corequisites:** NURS 421/NURS 421L, and NURS 427L.

**NURS 427L Mental Health Laboratory1 Credit**

Approaches to psychosocial integrity with emphasis on the function and responsibility of nursing in promoting and maintaining 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.

**Fees:** Yes.

**NURS 429 Adult Health II3 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 critically ill adult clients. Students are expected to integrate previous learning to assist the patient and family in achieving optimal functioning in various complex health care situations and settings.

**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.

**NURS 429L Adult Health II Laboratory3 Credits**

Integration of 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 units, the student will rotate through the critical care areas of the health care facility.

**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.

**NURS 430 Leadership for the RN3 Credits**

Exploration of nurses functioning in leadership and management capacity 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 Laboratory1 Credit**

Application of theory into practice while functioning in a leadership and management capacity. Clarification of short and long-term career goals and plans for other aspects of entry into practice. Development and evaluation of individual learning objectives throughout the practice experience. Application of theory in the role of a mentor in a practice setting.

**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 Pediatrics3 Credits**

Exploration of 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.

**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.

**NURS 431L High Risk Obstetrics and Pediatrics Laboratory2 Credits**

Application of 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.

**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.

**NURS 432 Capstone Leadership for the RN4 Credits**

Contributions of the registered nurse to quality healthcare through lifelong learning and professional development impacts quality of patient care and safety. The course will provide structure to develop and implement a formal professional plan to exhibit competency as a Baccalaureate prepared nurse in an ever-changing practice environment.

**Prerequisites:** NURS 300, NURS 320/NURS 320L, NURS 408, NURS 409, NURS 410/NURS 410L, NURS 418, and NURS 426, NURS 430/NURS 430L.

**Terms Typically Offered:** Fall, Spring, Summer.

**NURS 449 Leadership2 Credits**

Exploration of leadership and management theory utilized in development of characteristics of a nurse leader. The role of the professional nurse as a change agent in shaping health care for the future is explored.

**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.

**NURS 449L Leadership Laboratory1 Credit**

Application of leadership and management theory utilized in development of characteristics of a nurse leader. The focus is on the exploration and analysis of contemporary nursing practice and current evidence-based practice as the basis for nursing care in the clinical setting.

**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.

**NURS 450 Intensive Care Areas Specialty Practice Preparedness3 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 Nursing2 Credits**

Introduction to nursing care of the childbearing family. Emphasis is on growth and developmentally appropriate management of the health needs of the mother and neonate. Exploration of psychological, psychosocial, and pathophysiological changes of the population. Application of nursing process to gather and analyze data and formulate interventions for the obstetrical patient and neonate within culturally diverse families.

**Prerequisites:** Admission to the BSN program.

**Corequisites:** NURS 458, NURS 459L, NURS 472, and NURS 473/NURS 473L.

**Terms Typically Offered:** Fall, Spring.

**NURS 458 Pediatric Nursing2 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, and NURS 473/NURS 473L.

**Terms Typically Offered:** Fall, Spring.

**NURS 459L Obstetrical and Pediatric Nursing Clinical3 Credits**

Application of the nursing care of the childbearing family. Emphasis on growth and development and management of the health and illness needs of the mother, newborn, and child within the family. Exploration of nursing care in labor and delivery, post-partum, newborn, and pediatrics will incorporate physiological, psycho-social, and pathophysiological changes of the population.

**Prerequisites:** Admission to the BSN program.

**Corequisites:** NURS 457, NURS 458, NURS 472, and NURS 473/  
NURS 473L.

**Terms Typically Offered:** Fall, Spring.

**NURS 470L Capstone Laboratory2 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.

**NURS 472 Professional Development II: Health Informatics2 Credits**

Exploration of information systems in health care and nursing practice. Exploration of current trends and issues in using, designing, and implementing health care information systems, healthcare information management, decision support, and knowledge management applications. Introduction of legal and ethical issues, management, and social networking tools in communicating health-related information.

**Prerequisites:** Admission to the BSN program.

**Corequisites:** NURS 457, NURS 458, NURS 459L, and NURS 473/  
NURS 473L.

**Terms Typically Offered:** Fall, Spring.

**NURS 473 Acute and Chronic Illness II4 Credits**

Application of critical thinking skills and the nursing process in caring for individuals in the acute care setting. Emphasis on disease pathophysiology, patient teaching, and continuity of care upon discharge. Exploration of coping mechanisms, adaptation, and implementation of health care strategies in acute illness.

**Prerequisites:** Admission to the BSN program.

**Corequisites:** NURS 457, NURS 458, NURS 459L, NURS 472, NURS 473L.

**Terms Typically Offered:** Fall, Spring.

**NURS 473L Acute and Chronic Illness II Clinical3 Credits**

Application of theory to complete comprehensive assessments and plan care for patients in acute and critical care. Exploration of health problems in critical care, emergency, medical-surgical units, invasive procedure labs, renal dialysis, specialized healthcare teams, and other acute care clinical areas. Introduction of the high fidelity simulation lab.

**Prerequisites:** Admission to the BSN program.

**Corequisites:** NURS 457, NURS 458, NURS 459L, NURS 472, NURS 473.

**Terms Typically Offered:** Fall, Spring.

**NURS 480 Basic Concepts in Palliative Care2 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 Nurse2 Credits**

Exploration of transitioning into professional nursing practice. Emphasis on scope of practice, delegation, professional development, and licensure. Exploration of health care systems as they relate to quality improvement, patient outcomes, finance, and policy development.

**Prerequisites:** Admission to the BSN program.

**Corequisites:** NURS 487/NURS 487L, NURS 490/NURS 490L, NURS 492, and NURS 493/NURS 493L.

**NURS 487 Community and Population Nursing3 Credits**

Exploration of theoretical basis for community and population health and the role of the nurse. Exploration of 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:** Admission to the BSN program.

**Corequisites:** NURS 482, NURS 487L, NURS 490/NURS 490L, NURS 492, and NURS 493/NURS 493L.

**NURS 487L Community and Population Nursing Clinical2 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.

**Corequisites:** NURS 482, NURS 487, NURS 490/NURS 490L, NURS 492, and NURS 493/NURS 493L.

**Fees:** Yes.

**NURS 490 Nursing Leadership and Management3 Credits**

Exploration of leadership and management theories for application and entry into practice. Examination of nurse leaders and managers as change agents, personal leadership styles, trends and issues, and leadership strategies in local, state, and/or national practice settings for culturally diverse populations.

**Prerequisites:** Admission to the BSN program.

**Corequisites:** NURS 482, NURS 487/NURS 487L, NURS 490L, NURS 492, and NURS 493/NURS 493L.

**NURS 490L Nursing Leadership and Management Clinical1 Credit**

Exploration of leadership and management theories for application and entry into practice. Examination of nurse leaders and managers as change agents, personal leadership styles, trends and issues, and leadership strategies in local, state, and/or national practice settings for culturally diverse populations.

**Prerequisites:** Admission to the BSN program.

**Corequisites:** NURS 482, NURS 487/NURS 487L, NURS 490, NURS 492, and NURS 493/NURS 493L.

**Fees:** Yes.

**NURS 492 Pharmacology for Nurses II2 Credits**

Application of concepts of clinical pharmacology including preparation for the NCLEX exam. Emphasis on major drug classifications, nursing considerations, and patient education. Exploration of ethical, legal, and economic factors.

**Prerequisites:** Admission to the BSN program. Foundation courses required. See program sheet for details.

**Corequisites:** NURS 482, NURS 487/NURS 487L, NURS 490/NURS 490L, and NURS 493/NURS 493L.

**NURS 493 Senior Capstone1 Credit**

Experiential learning under the direction of nurse preceptors and nursing faculty in a variety of practice settings. Emphasis is placed on the development of personal and professional strategies necessary to transition from the role of student to graduate nurse.

**Prerequisites:** Admission to the BSN program.

**Corequisites:** NURS 482, NURS 487/NURS 487L, NURS 490/NURS 490L, NURS 492, and NURS 493L.

**Terms Typically Offered:** Fall, Spring.

**NURS 493A Senior Capstone and Senior Capstone Clinical I2 Credits**

Synthesis of theoretical nursing concepts through the use of case studies, application exercises, and simulation activities.

**Prerequisites:** Acceptance into CMU nursing program; AHA CPR certification.

**Terms Typically Offered:** Fall.

**NURS 493B Senior Capstone and Senior Capstone Clinical II2 Credits**

Synthesis of knowledge and skills learned in the Baccalaureate program. Refinement of nursing practice skills in a safe learning environment using guided clinical experiences.

**Prerequisites:** Acceptance into CMU nursing program; AHA CPR certification.

**Corequisites:** NURS 482, NURS 487/NURS 487L, NURS 490/NURS 490L, NURS 492 and NURS 493A.

**Terms Typically Offered:** Spring.

**NURS 493L Senior Capstone Clinical3 Credits**

Experiential learning under the direction of nurse preceptors and nursing faculty in a variety of practice settings. Emphasis is placed on the development of personal and professional strategies necessary to transition from the role of student to graduate nurse.

**Prerequisites:** Admission to the BSN program.

**Corequisites:** NURS 482, NURS 487/NURS 487L, NURS 490/NURS 490L, NURS 492, and NURS 493.

**Fees:** Yes.

**NURS 495 Independent Study1-4 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**NURS 496 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**NURS 500 Theoretical Foundations3 Credits**

Exploration of the critical components of nursing knowledge, including concepts, philosophies, theories, and conceptual models. Evaluates the variety of ways to organize nursing knowledge. Explores the application of nursing theory and nursing knowledge in the healthcare environment.

**Prerequisites:** Admission to the MSN or DNP program.

**NURS 501 Evidence-Based Practice3 Credits**

Introduction to advanced research concepts and their relationship to evidence-based practice. Explores application of research, ethics, designs, and methods. Incorporates integration of clinical practice standards and guidelines for the purpose of promoting healthcare quality and safety.

**Prerequisites:** Admission to the Master of Science in Nursing or the Doctor of Nursing Practice degree programs.

**Terms Typically Offered:** Fall.

**NURS 502 Technology for the Nurse Educator3 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 Leadership3 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 Ethics2 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 Leadership3 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 Pathophysiology3 Credits**

Exploration of physiologic and pathophysiologic processes underlying health and disease across the lifespan. Includes cellular, genetic, and environmental factors that impact human health and illness.

**Prerequisites:** Admission to the MSN or DNP program.

**NURS 526 Advanced Pharmacology for Nursing3 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 Assessment2 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 Management3 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

Theories and principles involved in planning, implementing, and evaluating interventions for health promotion and disease prevention across the lifespan. Focus is on behavior change at the individual and aggregate levels, while considering cultural variations of patient populations and ethical decision-making for nursing professionals. Factors underlying development of chronic illnesses are explored.

**Prerequisites:** Admission to the MSN or DNP program.

**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.

**Prerequisites:** Admission to the MSN or DNP program.

**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**3 Credits

Development of capstone project demonstrates synthesis of graduate work and establishes groundwork for future scholarship. Capstone project reflects the student's clinical practice setting with a selected population group. Culminates in a formal paper and presentation in an academic setting.

**Prerequisites:** NURS 500, NURS 501, NURS 502, NURS 503, NURS 504, NURS 505, NURS 525, NURS 526, and NURS 527.

**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 Procedures**1 Credit

Exploration of common clinical procedures performed by primary care nurse practitioners.

**Prerequisites:** NURS 525, NURS 526, NURS 527 and NURS 577.

**Terms Typically Offered:** Summer.

**NURS 588 Diagnostic Testing**1 Credit

Exploration of clinical diagnostic testing for the purpose of diagnosing and monitoring pathophysiologic processes underlying health and illness.

**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 600 Advanced Practice Nursing Issues**2 Credits

Roles and responsibilities of the nurse practitioner in augmenting client health and health services. Examines the history of nurse practitioners, client relations, and legal and ethical considerations. Interdisciplinary teams, health policy formation and political strategies considered. Professional involvement and practice, leadership, collaboration and teamwork in various settings examined.

**Prerequisites:** Bachelor of Science in Nursing Degree, Master of Science in Nursing Degree, or completion of 500-level coursework.

**NURS 601 Primary Care of the Infant, Child, and Adolescent**3 Credits

Focuses on primary care of the child and adolescent, beginning with the newborn. Growth, nutrition, well client care and guidance, assessment, diagnosis and management of acute and chronic conditions in the client population. Culture and ethnic considerations, child development, family, environment theories and concepts integrated throughout the didactic and clinical components.

**Prerequisites:** NURS 602 and NURS 620; or NURS 603 and NURS 630.

**Corequisites:** NURS 610.

**NURS 602 Primary Care of the Adult3 Credits**

Exploration 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.

**NURS 603 Primary Care of the Older Person3 Credits**

Focus on the primary care nurse practitioner's role in older adult health. Emphasis on clinical presentation, physical examination, diagnostic testing, differential diagnosis, and management of acute and chronic conditions affecting older adult populations. Explores the application of clinical practice guidelines, inter-disciplinary care, health promotion, and disease prevention in older adults in primary care settings.

**Prerequisites:** Admission to the MSN or DNP program.

**Corequisites:** NURS 630.

**NURS 604 Primary Care of Rural and Underserved Populations: Capstone1 Credit**

Synthesis of primary care in the unique role of an advanced practice nurse. Emphasis on 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.

**NURS 605 Mental and Behavioral Health2 Credits**

Exploration 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 seen in primary care settings.

**Prerequisites:** Admission to the MSN or DNP program.

**Corequisites:** NURS 615.

**Terms Typically Offered:** Fall.

**NURS 610 Clinical Practicum: Infant, Child, and Adolescent2 Credits**

Application 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 as an advanced practice nurse.

**Prerequisites:** NURS 602 and NURS 620; or NURS 603 and NURS 630.

**Corequisites:** NURS 601.

**NURS 615 Clinical Practicum: Mental and Behavioral Health1 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: Adult3 Credits**

Application of theoretical concepts of primary care of families with a concentration on adult patients and the environments where adult primary care is rendered. Students are supervised by community-based clinical preceptors and course faculty in the assessment, diagnostic and laboratory evaluation, and management of families across the continuum of health and illness.

**Prerequisites:** Admission to the MSN or DNP program.

**Corequisites:** NURS 602.

**NURS 625 Statistics for Health Sciences3 Credits**

Exploration of commonly used statistical methods and procedures used for health science research and practice. Students develop data sets and perform a variety of statistical tests using statistical software packages.

**Prerequisites:** NURS 500, NURS 501, NURS 502, NURS 503, NURS 504, NURS 505, NURS 525, NURS 526, and NURS 527.

**NURS 626 Clinical Epidemiology3 Credits**

Exploration of epidemiological concepts as applied to public health. Translating evidence and evaluating the impact of policies and programs in public health investigation. Includes dynamic behavior of disease, usage of rates, ratios and proportions, study designs for application of epidemiology in health services, screening, genetics, and environmental policy.

**Prerequisites:** NURS 525, NURS 526, NURS 527, NURS 602, and NURS 620.

**NURS 627 Health Information Systems in Advanced Nursing Practice2 Credits**

Exploration of information systems in health care and advanced nursing practice. Trends and issues in using, designing, implementing, and managing health care information systems as a disciplinary science for advanced nursing practice will be examined.

**Prerequisites:** Admission to the DNP Program.

**Terms Typically Offered:** Summer.

**NURS 630 Clinical Practicum: Older Person2 Credits**

Application of theoretical concepts of 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:** Admission to the MSN or DNP program.

**Corequisites:** NURS 603.

**NURS 640 Clinical Practicum Capstone: Primary Care of Rural and Underserved Populations3 Credits**

Application of theoretical concepts of primary care across the lifespan with particular emphasis on rural and/or underserved populations. Explores unique aspects of the advanced practice nursing role as a primary care provider in rural and underserved populations in health care.

**Prerequisites:** NURS 602 and NURS 620; or NURS 603 and NURS 630.

**Corequisites:** NURS 604

**NURS 650 Clinical Preceptorship I3 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.

**NURS 652 Clinical Preceptorship II3 Credits**

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.

**Terms Typically Offered:** Fall, Spring.

**NURS 660 Doctor of Nursing Practice Scholarly Project: Identification2 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:** NURS 600, NURS 602, NURS 604, NURS 620, NURS 625, NURS 626, and NURS 640.

**NURS 697 Clinical Practicum: Advanced Healthcare Leadership1-9 Credits**

Application of theory and research methods to the clinical leadership experiences.

**Terms Typically Offered:** Summer.

Course may be taken multiple times up to maximum of 9 credit hours.

**NURS 700 Translational Evidence-Based Practice2 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 725 Doctor of Nursing Practice Scholarly Project: Development2 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 Defend3 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:** NURS 725.

**NURS 760 Doctor of Nursing Practice Scholarly Project: Implementation and Evaluation3 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 Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

## Occupational Therapy (OCCU)

**OCCU 510 Scholarship and Research2 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:** 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 511 Lifespan and Occupational Performance2 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 510, OCCU 512, OCCU 513, OCCU 514, OCCU 515, and OCCU 550.

**Terms Typically Offered:** Spring.

**OCCU 512 Professional Skills and Occupation-Based Practice I2 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 510, OCCU 511, OCCU 513, OCCU 514, OCCU 515, and OCCU 550.

**Terms Typically Offered:** Spring.

**OCCU 513 Functional Anatomy and Movement3 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 510, OCCU 511, OCCU 512, OCCU 514, OCCU 515, and OCCU 550.

**Terms Typically Offered:** Spring.

**OCCU 514 Wellness and Occupational Performance2 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 510, OCCU 511, OCCU 512, OCCU 513, OCCU 515, and OCCU 550.

**Terms Typically Offered:** Spring.

**OCCU 515 Occupation-Based Practice and Theory for Older Adults4 Credits**

In-depth analysis of occupation-based practice and theory focused on older adults living with physical, mental and/or emotional conditions. Topics include professional skills, safety regulations, wheelchair and bed mobility, evidence-based research and how client-centered occupational therapy influences physical, mental and emotional health and quality of life.

**Prerequisites:** Admission into the Master of Science in Occupational Therapy program.

**Corequisites:** OCCU 510, OCCU 511, OCCU 512, OCCU 513, OCCU 514, and OCCU 550.

**Terms Typically Offered:** Spring.



**OCCU 520 Brain, Behavior and Occupation2 Credits**

Foundational neuroscience preparation including nervous system development, plasticity in typical development as well as in response to trauma and disease. Topics include the neuronal pathways underlying function with emphasis on sensation, movement, cognition and pain. By analyzing differences in central and peripheral nervous system functions, students learn to articulate how occupational performance affects, and is affected by, neurological processing.

**Prerequisites:** OCCU 510, OCCU 511, OCCU 512, OCCU 513, OCCU 514, OCCU 515, and OCCU 550.

**Corequisites:** OCCU 522, OCCU 523, and OCCU 551.

**Terms Typically Offered:** Summer.

**OCCU 522 Professional Skills and Occupation-Based Practice II2 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 510, OCCU 511, OCCU 512, OCCU 513, OCCU 514, OCCU 515, and OCCU 550.

**Corequisites:** OCCU 520, OCCU 523, and OCCU 551.

**Terms Typically Offered:** Summer.

**OCCU 523 Occupation-Based Practice and Theory for Adults4 Credits**

In-depth analysis of occupation-based practice and theory focused on adults living with acute or chronic illness. Topics include professional behavior, safety regulations, community mobility, evidence-based research and how client-centered occupational therapy influences physical, mental and emotional health and quality of life.

**Prerequisites:** OCCU 510, OCCU 511, OCCU 512, OCCU 513, OCCU 514, OCCU 515, and OCCU 550.

**Corequisites:** OCCU 520, OCCU 522, and OCCU 551.

**Terms Typically Offered:** Summer.

**OCCU 530 Scholarship and Evidence-Based Practice I2 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 520, OCCU 522, OCCU 523, and OCCU 551.

**Corequisites:** OCCU 531, OCCU 532, OCCU 533, and OCCU 552.

**Terms Typically Offered:** Fall.

**OCCU 531 Occupation-Based Practice and Theory for Children and Adolescents4 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 520, OCCU 522, OCCU 523, and OCCU 551.

**Corequisites:** OCCU 530, OCCU 532, OCCU 533, and OCCU 552.

**Terms Typically Offered:** Fall.

**OCCU 532 Assistive Technology and Occupation2 Credits**

Exploration of assistive technology and adapted equipment to improve quality of life and participation in everyday occupations and daily life tasks. This course will cover topics related to: needs assessment, design, fabrication, application and training in assistive technologies and devices to improve occupational performance.

**Prerequisites:** OCCU 520, OCCU 522, OCCU 523, and OCCU 551.

**Corequisites:** OCCU 530, OCCU 531, OCCU 533, and OCCU 552.

**Terms Typically Offered:** Fall.

**OCCU 533 Telehealth, Occupation and Modalities2 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 520, OCCU 522, OCCU 523, and OCCU 551.

**Corequisites:** OCCU 530, OCCU 531, OCCU 532, and OCCU 552.

**Terms Typically Offered:** Fall.

**OCCU 540 Scholarship and Evidence-Based Practice II2 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, and OCCU 552.

**Corequisites:** OCCU 541, OCCU 542, OCCU 543, and OCCU 553.

**Terms Typically Offered:** Spring.

**OCCU 541 Leadership and Ethics in Occupational Therapy2 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, and OCCU 552.

**Corequisites:** OCCU 540, OCCU 542, OCCU 543, and OCCU 553.

**Terms Typically Offered:** Spring.

**OCCU 542 Occupation-Based Practice and Theory for Populations4 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-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, and OCCU 552.

**Corequisites:** OCCU 540, OCCU 541, OCCU 543, and OCCU 553.

**Terms Typically Offered:** Spring.

**OCCU 543 Professional Development Preparation2 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, and OCCU 552.

**Corequisites:** OCCU 540, OCCU 541, OCCU 542, and OCCU 553.

**Terms Typically Offered:** Spring.

**OCCU 550 Fieldwork Level IA and Seminar2 Credits**

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 510, OCCU 511, OCCU 512, OCCU 513, OCCU 514, and OCCU 515.

**Terms Typically Offered:** Spring.

**OCCU 551 Fieldwork Level IB and Seminar2 Credits**

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 510, OCCU 511, OCCU 512, OCCU 513, OCCU 514, OCCU 515, and OCCU 550.

**Corequisites:** OCCU 520, OCCU 522, and OCCU 523.

**Terms Typically Offered:** Summer.

**OCCU 552 Fieldwork Level IC and Seminar2 Credits**

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, OCCU 523, and OCCU 551.

**Corequisites:** OCCU 530, OCCU 531, OCCU 532, and OCCU 533.

**Terms Typically Offered:** Fall.

**OCCU 553 Fieldwork Level ID and Seminar with Inter-Professional Education2 Credits**

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.

**Prerequisites:** OCCU 530, OCCU 531, OCCU 532, OCCU 533, and OCCU 552.

**Corequisites:** OCCU 540, OCCU 541, OCCU 542, and OCCU 543.

**Terms Typically Offered:** Spring.

**OCCU 554 Fieldwork Level IIA12 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, and OCCU 553.

**Terms Typically Offered:** Summer.

**OCCU 555 Fieldwork Level IIB12 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 594 Fieldwork Seminar1 Credit**

Consultation with AFWC on culminating project ensuring synthesis and integration of MSOT curriculum and assessment of practical knowledge. Completion of Fieldwork Level IIA.

**Prerequisites:** OCCU 554.

**Corequisites:** OCCU 555.

**Terms Typically Offered:** Fall.

## Outdoor Recreation Industry Studies (OREC)

**OREC 100 Leave No Trace1 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 Orienteering1 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 Backpacking1 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.

**OREC 108 Stand Up Paddle Boarding1 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.

**OREC 109 Kayaking1 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.

**OREC 110 River Rafting1 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.

**OREC 112 Rock Climbing II1 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 Travel1 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.

**OREC 205 Foundations of Outdoor Recreation Industry Studies3 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 Business3 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 Theory3 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.

**OREC 312 Swiftwater Rescue Techniques and Theory3 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.

**OREC 313 Rock Climbing Instructor and Rope Rescue3 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 Guide3 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 350 Community Health and the Outdoor Recreation Industry3 Credits**

Principles that promote outdoor recreation as essential to community, corporate, and individual health. Addresses equitable access to community outdoor resources; examines data on nature's health benefits; investigates cross-sector partnerships and funding to create a healthy workforce and community.

**Prerequisites:** OREC 205.

**Terms Typically Offered:** Fall, Spring.

**OREC 405 Outdoor Recreation Leadership, Programming, Education, and Assessment3 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 Internship3-12 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

## Pharmacy Technician (PHTE)

**PHTE 111 Introduction to Pharmacy3 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 Ethics2 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:** Fall.

**PHTE 114 Computer Skills for Pharmacy Technicians1 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.

**PHTE 115 Pharmacology I3 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 Pharmacy3 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.

**Corequisites:** PHTE 111 and PHTE 235.

**Terms Typically Offered:** Spring.

**PHTE 118 Pharmacology II3 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:** Fall.

**PHTE 119 Community Pharmacy3 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:** Fall, Spring.

**PHTE 170 Pharmacy Clinical: Institutional4 Credits**

Hands-on experience in an institutional 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 112, PHTE 114, PHTE 115, PHTE 116, and PHTE 235.

**Corequisites:** PHTE 118 and PHTE 119.

**Terms Typically Offered:** Spring.

**PHTE 171 Pharmacy Clinical: Community4 Credits**

Hands-on experience in a community 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, and PHTE 235.

**Corequisites:** PHTE 118 and PHTE 119.

**Terms Typically Offered:** Spring.

**PHTE 189 Review for PTCB National Exam1 Credit**

Preparation and practice for national certification exam.

**Terms Typically Offered:** Fall.

**PHTE 235 Calculations and Compounding Techniques4 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.

**Corequisites:** PHTE 111.

**Terms Typically Offered:** Fall.

**PHTE 250 Sterile Compounding and Aseptic Technique2 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.

**PHTE 255 Advanced Practice and Nontraditional Roles2 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)

**PHIL 105 Critical Thinking-GTAH33 Credits**

An 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**

**PHIL 110 Introduction to Philosophy-GTAH33 Credits**

Includes an 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**

**PHIL 120 Ethics-GTAH33 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 such issues as euthanasia, abortion, war, capital punishment, affirmative action, etc.

**Essential Learning Categories:** Humanities

**Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum**

**PHIL 130 Philosophy of Religion-GTAH33 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, pluralism in world religions, etc.

**Essential Learning Categories:** Humanities

**Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum**

**PHIL 150 Philosophical Forum3 Credits**

Engagement with, and confrontation of, issues that challenge the community of Grand Junction and the Western Slope. Forum for speakers with varying positions and perspectives on economic, environmental, legal, social and cultural controversies. The deeper philosophical implications will remain in the forefront of the discussion.

**PHIL 275 Introduction To Logic3 Credits**

Forms of reasoning, valid versus fallacious inferences, strong versus weak arguments. Designed to increase the ability to reason clearly and correctly and follow and critically evaluate the reasoning of others.

**PHIL 296 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**PHIL 340 The Examined Life3 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, creativity.

**PHIL 350 The Roots of Western Thought3 Credits**

Examination of the development of Western philosophical thought from its inception with the ancient Hellenes, through the Hellenistic and Medieval periods. Philosophical methods and problems will be discussed, including (but not limited to): ontology, metaphysics, political and social thought, death and the afterlife, the influence of philosophy on Christianity, the nature of the universe, human nature, the development of science and logic. Philosophers covered will include: The Presocratics, Socrates, Plato, Aristotle, Augustine, Aquinas, and others.

**PHIL 395 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**PHIL 396 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**PHIL 410 Major Thinker3 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.

Course may be taken 4 times for credit.

**PHIL 420 Major Works3 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.

Course may be taken 4 times for credit.

**PHIL 430 Major Issues3 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. Course may be taken 4 times for credit.

**PHIL 495 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**PHIL 496 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

# Physical Therapy (PHYT)

**The Physical Therapy Program is currently under development. Please contact Academic Affairs/Kinesiology for more details.**

Graduation from a physical therapist education program accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE), 1111 North Fairfax Street, Alexandria, VA 22314; phone: 703-706-3245; email: [accreditation@apta.org](mailto:accreditation@apta.org) is necessary for eligibility to sit for the licensure examination, which is required in all states.

Colorado Mesa University is seeking accreditation of a new physical therapist education program from CAPTE. The program is planning to submit an Application for Candidacy, which is the formal application required in the pre-accreditation stage, on December 1, 2022. Submission of this document does not assure that the program will be granted Candidate for Accreditation status. Achievement of Candidate for Accreditation status is required prior to implementation of the professional phase of the program; therefore, no students may be enrolled in professional courses until Candidate for Accreditation status has been achieved. Further, though achievement of Candidate for Accreditation status signifies satisfactory progress toward accreditation, it does not assure that the program will be granted accreditation.

**PHYT 500 Anatomy3 Credits**

Introduction to advanced concepts in gross anatomy, anatomical relationships, and spatial orientation of normal anatomic structures and common anatomic variations.

**Prerequisites:** Admission into the Doctor of Physical Therapy program.

**Corequisites:** PHYT 500L.

**Terms Typically Offered:** Fall.

**PHYT 500L Anatomy Laboratory1 Credit**

Introduction to advanced concepts in gross anatomy, anatomical relationships, and spatial orientation of normal anatomic structures and common anatomic variations. Laboratory experience accompanying PHYT 500.

**Prerequisites:** Admission into the Doctor of Physical Therapy program.

**Corequisites:** PHYT 500.

**Terms Typically Offered:** Fall.

**PHYT 501 Histology1 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 Physiology3 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 I3 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.

**PHYT 503L Kinesiology-Biomechanics I Laboratory1 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 II3 Credits**

Continuation of kinesiology with analysis of normal human movement and detailed assessment of joint kinematics and kinetics.

**Prerequisites:** PHYT 500/PHYT 500L and PHYT 503/PHYT 503L.

**Corequisites:** PHYT 504L.

**Terms Typically Offered:** Spring.

**PHYT 504L Kinesiology-Biomechanics II Laboratory1 Credit**

Continuation of kinesiology with analysis of normal human movement and detailed assessment of joint kinematics and kinetics. Laboratory experience accompanying PHYT 504.

**Prerequisites:** PHYT 500/PHYT 500L and PHYT 503/PHYT 503L.

**Corequisites:** PHYT 504.

**Terms Typically Offered:** Spring.

**PHYT 505 Essential Skills and Laboratory3 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.

**PHYT 506 Professional Practice Considerations I1 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 II2 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 Laboratory3 Credits**

Examination, evaluation, and intervention strategies for common musculoskeletal disorders affecting the upper extremity.

**Prerequisites:** PHYT 500/PHYT 500L and PHYT 503/PHYT 503L.

**Corequisites:** PHYT 504 and PHYT 504L.

**Terms Typically Offered:** Spring.

**PHYT 510 Musculoskeletal Conditions II and Laboratory3 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 Laboratory3 Credits**

Examination, evaluation, and intervention strategies for common musculoskeletal disorders affecting the spine.

**Prerequisites:** PHYT 509.

**Terms Typically Offered:** Summer.

**PHYT 512 Research I: Evidence-Based Practice3 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 Statistics3 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 Imaging2 Credits**

Introduction to the fundamentals of musculoskeletal imaging.

**Prerequisites:** Admission to the Doctor of Physical Therapy program.

**Terms Typically Offered:** Spring.

**PHYT 515 Therapeutic Modalities2 Credits**

Exploration of the electrophysiologic agents used to treat patients in clinical practice.

**Prerequisites:** Admission to the Doctor of Physical Therapy program.

**Corequisites:** PHYT 515L.

**Terms Typically Offered:** Spring.

**PHYT 515L Therapeutic Modalities Laboratory1 Credit**

Exploration of the electrophysiologic agents used to treat patients in clinical practice. Laboratory experience accompanying PHYT 515.

**Prerequisites:** Admission to the Doctor of Physical Therapy program.

**Corequisites:** PHYT 515.

**Terms Typically Offered:** Spring.

**PHYT 516 Pharmacology for Physical Therapy2 Credits**

Exploration of the primary drug classes and the physiologic basis of their action.

**Prerequisites:** PHYT 502.

**Terms Typically Offered:** Summer.

**PHYT 517 Neuroscience3 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 I2 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 I3 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 Physiology2 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.

**PHYT 600L Exercise Physiology Laboratory1 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 Laboratory3 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 Laboratory3 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 Laboratory3 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 Conditions3 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 Laboratory3 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: Geriatrics2 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 Laboratory3 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 III2 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 IV2 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 Laboratory3 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 Laboratory3 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 Laboratory3 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 II2 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 Seminar1 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 II4 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 IV6 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 III4 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)

## PHAS 501 Biomedical Science4 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.

**Corequisites:** BIOL 500/BIOL 500L, PHAS 502, PHAS 510, PHAS 520/PHAS 520L, PHAS 530, and PHAS 541.

**Terms Typically Offered:** Spring.

## PHAS 502 Clinical Pharmacology3 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:** BIOL 500/BIOL 500L, PHAS 501, PHAS 510, PHAS 520/PHAS 520L, PHAS 530, and PHAS 541.

**Terms Typically Offered:** Spring.

## PHAS 503 Health Promotion and Disease Prevention2 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 Medicine2 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 HIPAA, 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:** BIOL 500/BIOL 500L, PHAS 501, PHAS 502, PHAS 520/PHAS 520L, PHAS 530, and PHAS 541.

**Terms Typically Offered:** Spring.

## PHAS 511 Clinical Medicine I13 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, Hematology and Oncology, Endocrinology, Otolaryngology, and Gastroenterology.

**Prerequisites:** BIOL 500/BIOL 500L, PHAS 501, PHAS 502, PHAS 510, PHAS 520/PHAS 520L, and PHAS 530.

**Corequisites:** PHAS 521 and PHAS 531.

**Terms Typically Offered:** Summer.

## PHAS 512 Clinical Medicine II13 Credits

Continuation of the clinical medicine course series, with an 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: Dermatology, Cardiovascular, Pulmonary, Genitourinary, Renal, Neurology, 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 III13 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 Exam2 Credits

Introduction to principles and skills of inspection, auscultation, percussion, palpation, and diagnostic equipment needed to complete an accurate and thorough exam. Foundational concepts of necessary 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:** BIOL 500/BIOL 500L, PHAS 501, PHAS 502, PHAS 510, PHAS 520L, PHAS 530, and PHAS 541.

**Terms Typically Offered:** Spring.

## PHAS 520L History and Physical Exam Lab1 Credit

Introduction to principles and skills of inspection, auscultation, percussion, palpation, and diagnostic equipment needed to complete an accurate and thorough exam. Foundational concepts of necessary 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:** BIOL 500/BIOL 500L, PHAS 501, PHAS 502, PHAS 510, PHAS 520, PHAS 530, and PHAS 541.

**Terms Typically Offered:** Spring.

## PHAS 521 Patient Assessment, Diagnostics and Clinical Skills Lab I2 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 and procedural skills related to topics specific to Infectious Disease, Behavioral Medicine, Hematology and Oncology, Endocrinology, Otolaryngology, and Gastroenterology.

**Prerequisites:** BIOL 500/BIOL 500L, PHAS 501, PHAS 502, PHAS 510, PHAS 520/PHAS 520L, and PHAS 530.

**Corequisites:** PHAS 511 and PHAS 531.

**Terms Typically Offered:** Summer.



**PHAS 522 Patient Assessment, Diagnostics and Clinical Skills Lab II2 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, Neurology, and Geriatrics.

**Prerequisites:** PHAS 511, PHAS 521, and PHAS 531.

**Corequisites:** PHAS 503, PHAS 512, and PHAS 532.

**Terms Typically Offered:** Fall.

**PHAS 523 Patient Assessment, Diagnostics and Clinical Skills Lab III2 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.

**PHAS 530 Introduction to Research and Evidence-Based Medicine2 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:** BIOL 500/BIOL 500L, PHAS 501, PHAS 502, PHAS 510, PHAS 520/PHAS 520L, and PHAS 541.

**Terms Typically Offered:** Spring.

**PHAS 531 Clinical Reasoning I2 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:** BIOL 500/BIOL 500L, PHAS 501, PHAS 502, PHAS 510, PHAS 520/PHAS 520L, and PHAS 530.

**Corequisites:** PHAS 511 and PHAS 521.

**Terms Typically Offered:** Summer.

**PHAS 532 Clinical Reasoning II2 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 III2 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 I2 Credits**

Focus on the 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 II2 Credits**

Continuation of the integrative principles of professionalism, practice issues and the business of health care 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 Capstone1 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 Seminar1 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.

**PHAS 571 Family Medicine Rotation4 Credits**

Emphasis on the pathophysiology, diagnosis, and management of systemic disease and conditions unique to the clinical practice of primary care. Clinical preceptors supervise student participation in patient care, skill development, and growing medical knowledge, emphasizing care of patients of all ages.

**Prerequisites:** PHAS 513, PHAS 523, PHAS 533, and PHAS 570.

**Terms Typically Offered:** Fall, Spring, Summer.

**PHAS 572 Behavioral Medicine and Mental Health Rotation2 Credits**

Emphasis on the pathophysiology, diagnosis, and management of systemic disease and conditions of mental health disorders. 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 Rotation4 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 Rotation2 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 obstetrical, 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 Rotation2 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 Rotation4 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 Rotation4 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 Rotation4 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 I4 Credits**

Emphasis on the pathophysiology, diagnosis, and management of systemic disease and conditions unique to the clinical practice of student's selected area of interest. Clinical preceptors supervise student participation in patient care, skill development, and growing medical knowledge in student's selected clinical rotation.

**Prerequisites:** PHAS 513, PHAS 523, PHAS 533, and PHAS 570.

**Terms Typically Offered:** Fall, Spring, Summer.

**PHAS 580 Elective Rotation II4 Credits**

Emphasis on the pathophysiology, diagnosis, and management of systemic disease and conditions unique to the clinical practice of student's selected area of interest. Clinical preceptors supervise student participation in patient care, skill development, and growing medical knowledge in student's selected clinical rotation.

**Prerequisites:** PHAS 513, PHAS 523, PHAS 533, and PHAS 570.

**Terms Typically Offered:** Fall, Spring, Summer.

**PHAS 581 Summative Seminar1 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.

**PHAS 595 Independent Study1-3 Credits**

Independent study if student needs additional instruction in a core content area.

**Terms Typically Offered:** Fall, Spring, Summer.

## Physics (PHYS)

**PHYS 100 Concepts of Physics-GTSC23 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**

**PHYS 101 Elementary Astronomy-GTSC23 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**

**PHYS 103 General Astronomy3 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

**Terms Typically Offered:** Fall, Spring.

**PHYS 103L General Astronomy Laboratory1 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

**Terms Typically Offered:** Fall, Spring.

**PHYS 111 General Physics-GTSC14 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, mastery of these subjects required. Four lectures and one two-hour laboratory per week.

**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**

**PHYS 111L General Physics Laboratory-GTSC11 Credit**

Lab component required for PHYS 111.

**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**

**PHYS 112 General Physics-GTSC14 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, with a grade of C or higher.

**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**

**PHYS 112L General Physics Laboratory-GTSC11 Credit**

Lab component required for PHYS 112.

**Prerequisites:** PHYS 111/PHYS 111L, or PHYS 131/PHYS 131L, with a grade of C or higher.

**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**

**PHYS 131 Fundamental Mechanics-GTSC14 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. For majors in the sciences and engineering.

**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**

**PHYS 131L Fundamental Mechanics Laboratory-GTSC11 Credit**

Lab component required for PHYS 131.

**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**

**PHYS 132 Electromagnetism and Optics-GTSC14 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. For majors in the sciences and engineering. Requires a mastery of the foundations of classical mechanics as covered in PHYS 131.

**Prerequisites:** PHYS 131/PHYS 131L, and MATH 152 or MATH 136 (either may be taken concurrently). A grade of C or higher in PHYS 131/PHYS 131L is required.

**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**

**PHYS 132L Electromagnetism and Optics Laboratory-GTSC11 Credit**

Lab component required for PHYS 132.

**Prerequisites:** PHYS 131/PHYS 131L, and MATH 152 or MATH 136 (either may be taken concurrently). A grade of C or higher in PHYS 131/PHYS 131L is required.

**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**

**PHYS 196 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**PHYS 230 Intermediate Dynamics3 Credits**

Intermediate treatment of the dynamics of physical systems not covered in Fundamental Mechanics sequence. Includes fluid dynamics, classical waves and vibrations, thermodynamics, and relativistic kinematics and dynamics.

**Prerequisites:** PHYS 132/PHYS 132L, and MATH 253 (may be taken concurrently).

**PHYS 231 Modern Physics3 Credits**

Quantum theory in the examination of blackbody radiation, the photoelectric effect, and energy quantization of atoms. The Schrodinger wave equation used to analyze simple quantum systems. Applications drawn from atomic and molecular physics, solid-state physics, nuclear and high-energy physics, and astrophysics.

**Prerequisites:** PHYS 132/PHYS 132L, and MATH 253 (may be taken concurrently).

**PHYS 251 Electronics for Scientists3 Credits**

This laboratory-based course is an introduction to electric circuits and electronic instrumentation for scientists. The course will emphasize 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.

**PHYS 252 Intermediate Laboratory3 Credits**

Students will perform 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).

**PHYS 296 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**PHYS 300 New Directions in Science3 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 Science3 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 I3 Credits**

A 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 MATH 260 or MATH 236; and PHYS 230 or PHYS 231.

**PHYS 312 Electromagnetic Theory II3 Credits**

A continuation of PHYS 311. Electromagnetic waves were studied. Wave propagation in conducting and nonconducting media is examined, along with dispersion phenomena. Waveguides are examined. Electromagnetic field radiation is studied, both for point charges and for arbitrary charge distributions. The course concludes with a reformulation of electromagnetism in the language of special relativity.

**Prerequisites:** PHYS 311.

**PHYS 321 Quantum Theory I3 Credits**

Quantum physics foundation. Includes quantum states, measurements, and time evolution using Dirac formalism for discrete and continuous systems. Connection between Dirac formalism and wave mechanics established and Schrodinger equation solved in various context. Includes particles in piecewise square potentials, tunneling, the harmonic oscillator, angular momentum, and the hydrogen atom. Introduces linear algebra for describing quantum physics and uses techniques for solving differential equations.

**Prerequisites:** PHYS 231, and MATH 260 or MATH 236.

**PHYS 331 Advanced Laboratory I3 Credits**

A course in experiment 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.

**PHYS 342 Advanced Dynamics3 Credits**

In-depth survey of classical mechanics, includes 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, couple oscillations, and waves on a string.

**Prerequisites:** PHYS 230, and MATH 260 or MATH 236.

**PHYS 352 History and Philosophy of Physics3 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 Physics3 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: specific heat of solids, thermal radiation, magnetic susceptibilities, stellar equilibrium, and chemical reactions.

**Prerequisites:** PHYS 230 or CHEM 321; and MATH 236 or MATH 260.

**PHYS 372 General Relativity3 Credits**

Introduction to Einstein's theory of general relativity. Newtonian gravitation and Einstein's theory of special relativity 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 Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**PHYS 396 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**PHYS 422 Quantum Theory II3 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 432 Nuclear and High-Energy Physics3 Credits**

An introduction to the structure and interactions of nuclear and subnuclear particles. Topics include a survey of the intrinsic properties of nuclei, descriptions of various nuclear models, studies of radioactivity and nuclear reactions, and an overview of the technologies of high-energy accelerators and detectors. The course concludes with an introduction to the properties and structures of elementary particles and discussions of current developments in unified theories of force.

**Prerequisites:** PHYS 322.

**PHYS 441 Solid State Physics3 Credits**

The 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.

**PHYS 471 Computational Physics I3 Credits**

Foundation covering application of computational techniques to solving physical problems. Numerical integration, differentiation, and matrix methods covered. Techniques of solving various regular and partial differential equations studied. Application of discretizing numerical solutions for physical problem stressed. Turning analytic problems into solvable computational schemes. Data analysis and visualization covered. Familiarity with any programming language is required. For any Science, Engineering or Mathematics major.

**Prerequisites:** MATH 260 or MATH 236.

**PHYS 472 Computational Physics II3 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 Optics3 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 Research1 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 Research1-3 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 Seminar1 Credit**

A forum for topical physics. In this seminar, faculty and students of physics participate in both informal discussions and formal oral presentations of selected topics of scientific interest, including significant current advances and crucial historical developments.

**Prerequisites:** Upper division standing and permission of instructor.

Course may be taken 4 times for credit.

**PHYS 495 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**PHYS 496 Topics1-3 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.

## Political Science (POLS)

**POLS 101 American Government-GTSS13 Credits**

Structures and functions of the American political system and the constitutional development of federalism and separation of powers. Also, citizen participation and influence in politics, the congress, presidency and the supreme court, and public policy including civil rights and liberties.

**Essential Learning Categories:** Social and Behavioral Sciences

**Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum**

**POLS 151 Introduction to Political Ideas3 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

**POLS 196 Topics:1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**POLS 201 Introduction to Political Inquiry3 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.

**POLS 236 State and Local Government3 Credits**

Theories of state formation and constitutional development, city charters, county government, and intergovernmental relations with emphasis on Colorado.

**POLS 261 Comparative Politics-GTSS13 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**

**POLS 270 World Politics3 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

**POLS 324 The Legislative Process3 Credits**

A study of the legislative process emphasizing the U.S. Congress. Attention will be given to the development of legislative systems, the operation of legislatures, the election of legislators, and a comparison with legislatures in other national states.

**Prerequisites:** POLS 101 or permission of instructor.

**POLS 325 The American Presidency3 Credits**

A 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.

**POLS 328 The American Court System3 Credits**

The American court system; local, state, and national, including consideration of the impact of prosecutors, defense personnel, judges, and other factors on court decisions and the criminal justice system.

**Prerequisites:** POLS 101 or CRMJ 201.

**Equivalent Course(s):** CRMJ 328

**POLS 342 Public Administration3 Credits**

Historical development of public administration including organizational structure and theory, management, personnel administration, fiscal administration, and administrative responsibility.

**POLS 351 Public and Elite Political Behavior3 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.

**POLS 352 Religion and Politics3 Credits**

The interactions of religion and politics in the United States, several liberal democracies and within international relations.

**POLS 353 Politics of Human and Natural Resources3 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.

**POLS 354 Political Geography3 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 Politics3 Credits**

Study 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.

**POLS 366 Government and Politics of Asia3 Credits**

Study 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.

**POLS 372 Peace and Conflict Studies3 Credits**

Interdisciplinary study 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.

**POLS 373 Global Politics of Women and Gender3 Credits**

Analysis 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, how evidence and theory are used to explain the gendered nature of global security and economic systems.

**POLS 395 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**POLS 396 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**POLS 399 Internship1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**POLS 412 Constitutional Law3 Credits**

An 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:** POLS 101 or permission of instructor.

**Equivalent Course(s):** CRMJ 412

**POLS 452 Political Theory: Classical and Medieval3 Credits****POLS 453 Political Theory: Modern3 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.

**POLS 462 Public Policy: Theory and Practice3 Credits**

Overview of theory and practice of public policy making and implementation. 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.

**POLS 471 Politics of Global Governance3 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.

**POLS 472 International Political Economy3 Credits**

Analysis of origins, evolution, and trajectory of global political economy. Includes international regulation, trade, finance, and monetary systems, as well as development, foreign aid, migration, organized crime, and resource extraction. Explores theory and evidence used to explain global economic developments.

**Prerequisites:** POLS 270.

**POLS 475 American Foreign and National Security Policy3 Credits**

American foreign and national security policy with emphasis on 1945 to the present and beyond. 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 are examined.

**POLS 482 International Relations Theory3 Credits**

Study 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.

**POLS 488 Environmental Politics and Policy3 Credits**

An 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.

**POLS 490 Senior Seminar for Political Science3 Credits**

Arranged tutorials and seminars with political science faculty and students, design and execution of a research project, and submission of a senior thesis.

**Prerequisites:** POLS 201 and senior standing.

**POLS 495 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**POLS 496 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**POLS 499 Internship1-15 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 Science3 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 Government3 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.

## Process Technology (PROS)

**PROS 100 Introduction to Process Technology3 Credits**

Provides an overview or introduction into the field of Process Operations within the process industry. The course will introduce the roles and responsibilities of process technicians, the environment in which they work, and the equipment and systems in which they operate.

**PROS 117 Electronics I3 Credits**

Fundamentals of practical and theoretical DC and AC circuits. Application of basic entry skills and analysis/verification of theoretical results.

Introduces the basic skills required by many careers in electronics and related fields. Operations and applications of basic DC and AC circuits consisting of resistors, capacitors, inductors, transformers and diodes, and introducing basic digital concepts. Emphasis on common test instruments in troubleshooting, working on real-world and applicable projects. Lecture/lab format.

**PROS 118 Electronics II3 Credits**

Advanced DC, AC and digital circuitry. Analysis and verification of theoretical results with practical applications. Builds on PROS 117 Electronics I and covers advanced concepts of DC and AC circuits. Includes expanded treatment of power supplies, dual-supply rectifier circuits, and Zener diode, voltage regulators. Includes digital concepts. Emphasis on common test instruments in troubleshooting, working on real-world projects. Lecture/lab format.

**Prerequisites:** PROS 117.

**PROS 120 Process Technology I: Equipment4 Credits**

Provides an overview or introduction into the field of equipment within the process industry. This course will introduce many process industry-related equipment concepts including purpose, components, operation, and the Process Technician's role for operating and troubleshooting the equipment.

**PROS 195 Independent Study1-4 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**PROS 196 Topics:1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**PROS 220 Process Technology III: Operations4 Credits**

Provides an introduction to the field of operations within the process industry. Students will use existing knowledge of equipment, systems, and instrumentation to understand the operation of an entire unit. Students study concepts related to commissioning, normal startup, normal operations, normal shutdown, turnarounds, and abnormal situations, as well as the Process Technician's role in performing the tasks associated with these concepts within an operating unit.

**PROS 230 Quality in Process Technology3 Credits**

Provides an introduction to the field of Quality within the Process Industry. This course will introduce many process industry-related quality concepts including operating consistency, continuous improvement, plant economics, team skills and statistical process control (SPC).

**PROS 290 Certification:1 Credit**

Capstone certification preparation specifically addressing each emphasis and associated certifications. Addresses Certified Electronics Technician (CET) program and other certifications.

**PROS 292 Capstone4 Credits**

Knowledge to articulate the tactical planning functions performed within field projects. Access and apply the various tactical planning tools and data elements to supporting documentation including troubleshooting. Economic principles in costing, value, capital investment, profitability and inventory.

## Psychology (PSYC)

**PSYC 150 General Psychology-GTSS33 Credits**

Examines the fundamental principles of psychology.

**Essential Learning Categories:** Social and Behavioral Sciences  
**Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum**

**PSYC 201 Orientation to the Psychology Major3 Credits**

Foundations for further study in psychology. Education and career planning. Basic information competence and writing skills, including APA writing format. Basic descriptive statistics, data reporting and graphic representation. Importance of research. Applying to graduate school.

**Prerequisites:** Declared psychology major, PSYC 150 and ENGL 112.

**PSYC 202 APA Style of Writing for Psychology Minors1 Credit**

APA writing format as foundation for further study in the psychology minor. Not intended for psychology majors.

**Prerequisites:** PSYC 150, ENGL 112, and declared minor in psychology.

**PSYC 216 Research Methods in Psychology4 Credits**

Designing, conducting, and reporting psychological investigations. Experimental, non-experimental, and quasi-experimental methods examined. Research project and presentation of results in APA style.

**Prerequisites:** PSYC 150, STAT 215, and PSYC 201.

**Terms Typically Offered:** Fall, Spring.

**PSYC 233 Human Growth and Development-GTSS33 Credits**

Developmental principles, ages and stages of the life span, and adjustment techniques. Not intended for behavioral science majors.

**Essential Learning Categories:** Social and Behavioral Sciences  
**Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum**

**PSYC 296 Topics1-4 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**PSYC 300 Health Psychology3 Credits**

Health and psychology are intertwined in a variety of ways. This course examines what it means to be healthy and look at the connection between behavior and both physical health and illness and mental health and illness.

**Prerequisites:** PSYC 150 or PSYC 233.

**PSYC 310 Child Psychology3 Credits**

A study of the principles of human development and psychology from conception to puberty.

**Prerequisites:** PSYC 150.

**PSYC 314 Psychology Of Learning3 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.

**PSYC 320 Social Psychology3 Credits**

Social influences upon behavior with consideration given to topics such as: social perception, attitude formation and change, communication, and leadership.

**Prerequisites:** PSYC 150.

**PSYC 330 Psychology of Adolescents and Emerging Adulthood3 Credits**

Study of principles of human development (biological, cognitive, and social/emotional) from puberty through emerging adulthood.

**Prerequisites:** PSYC 150.

**PSYC 335 Psychology of Women3 Credits**

A brief account of the role of women in mythology and history will be followed by coverage of women's heritage in psychology. Then gender specific aspects of physical, psychological and social development will be covered. Current areas of interest will be included, e.g., communication, work related issues, relationships.

**Prerequisites:** PSYC 150.

**PSYC 340 Abnormal Psychology3 Credits**

Concepts related to psychopathology and personality disorders including functional causation, general psychological theory, and behavior deviation patterns.

**Prerequisites:** PSYC 150 or permission of instructor.

**PSYC 345 Abnormal Child Psychology3 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 Adulthood3 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.

**PSYC 370 Cross-Cultural Psychology3 Credits**

Survey of theory and methods in cross-cultural psychology.

**Prerequisites:** PSYC 150.

**PSYC 395 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**PSYC 396 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**PSYC 400 Psychological Testing3 Credits**

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.

**PSYC 401 Sport Psychology3 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.

**PSYC 408 Foundations of School Counseling3 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 Behavior3 Credits**

Study of pharmacological effects and behavioral consequences of self-administered depressants, stimulants, and euphoricants, of marijuana, alcohol and tobacco, and of medicines. Prevention of drug-related problems is considered briefly.

**Prerequisites:** Junior or senior standing.

**PSYC 411 Human Sexuality3 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 Psychology3 Credits**

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. Counts as a management course for BBA candidates.

**Prerequisites:** PSYC 150 or permission of instructor.

**PSYC 414 History of Psychology3 Credits**

Systems and theories of modern psychology and the development of scientific psychology since 1879.

**Prerequisites:** PSYC 150, and good standing as a junior or above psychology major, or permission of instructor.

**PSYC 416 Memory And Cognition3 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. Includes a research paper written in APA style.

**Prerequisites:** PSYC 150.



**PSYC 420 Personality3 Credits**

Examination of personality psychology from the time of Freud through the present. 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 422 Sensation and Perception3 Credits**

Study of the human senses, especially vision and hearing, and of people's meaningful organization of sensory information.

**Prerequisites:** PSYC 150 or permission of instructor.

**PSYC 425 Forensic Psychology3 Credits**

Introduction to the production and application of psychological knowledge to the civil and criminal justice systems.

**Prerequisites:** Junior or senior standing.

**PSYC 430 Biopsychology3 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 Psychology3 Credits**

Survey of the theories and research in social psychology. Advanced topics in social psychology through readings and discussion on historical and current perspectives. May include self, person perception, attitudes, attributions, close relationships, social influence, and group conflict.

**Prerequisites:** PSYC 150 and upper division standing.

**PSYC 495 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**PSYC 496 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**PSYC 499 Internship1-12 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

## Psychology - Counseling (PSYP)

**PSYP 305 Suicide Intervention Training1 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 Counseling1 Credit**

Application of professional ethical principles and codes to mental health and health service settings.

**PSYP 320 Career Development3 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 Learning3 Credits**

Exploration of multiculturalism through ethnography and community service field work.

**Prerequisites:** PSYC 201.

**PSYP 396 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**PSYP 410 Introduction to Marriage and Family Counseling3 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 Techniques3 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 Interviewing3 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 Processes3 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 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**PSYP 497 Practicum I4 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 II4 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)

**PADM 314 Public Organization Theory3 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.

**PADM 315 Public Management3 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.

**PADM 350 Ethics in Public Administration3 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.

**PADM 396 Topics:1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**PADM 442 Public Budgeting3 Credits**

Examines 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.

**PADM 446 Public Personnel Management3 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.

**PADM 495 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

## Radiologic Sciences (RADS)

**RADS 320 Introduction to Radiologic Technology and Patient Care3 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 Laboratory1 Credit**

Lab component required for RADS 320.

**Corequisites:** RADS 320.

**RADS 321 Radiographic Anatomy and Positioning I2 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 Laboratory1 Credit**

Lab component required for RADS 321.

**Prerequisites:** Acceptance into the Radiologic Sciences program.

**Corequisites:** RADS 321.

**RADS 322 Principles of Radiographic Exposure2 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 Laboratory1 Credit**

Lab component required for RADS 322.

**Prerequisites:** Acceptance into the Radiologic Sciences program.

**Corequisites:** RADS 322.

**RADS 323 Digital Imaging2 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 I1 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.

**RADS 331 Radiographic Anatomy and Positioning II2 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 Laboratory1 Credit**

Lab component required for RADS 331.

**Prerequisites:** Acceptance into the Bachelor of Science in Radiologic Sciences program.

**Corequisites:** RADS 331.

**RADS 332 Specialized Imaging2 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 Assurance2 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 Laboratory1 Credit**

Lab component required for RADS 333.

**Prerequisites:** Acceptance into the Radiologic Sciences program.

**Corequisites:** RADS 333.

**RADS 334 Image Analysis I2 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 Protection2 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 II4 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 II2 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 III6 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 Pathology3 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 Anatomy3 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 Care3 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 IV5 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 Imaging2 Credits**

Introduction to the operation of a magnetic resonance imaging (MRI) scanner. Includes magnetic resonance imaging instrumentation, safety, physics, and contrast 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 Tomography2 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 Management3 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 Sciences3 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 Capstone3 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 V5 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 Imaging3 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 Tomography3 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 I4 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 II4 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 Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

## Reading (READ)

### READ 092 College Reading Studio1 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)

### REAL 350 Real Estate Fundamentals3 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 Development3 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 Investment3 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.

## Social Science (SOC)

### SOCI 101 Introduction to Lesbian, Gay, Bisexual, and Transgender Studies-GTSS33 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**

### SOCI 120 Technology and Society-GTSS33 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**

### SOCI 196 Topics1-6 Credits

Course may be taken multiple times up to maximum of 15 credit hours.

### SOCI 270 Introduction to Pre-Law Studies2 Credits

Exploration of the path to law school. Dispels the 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.

### SOCI 296 Topics1-3 Credits

Course may be taken multiple times up to maximum of 15 credit hours.

### SOCI 390 GRE Preparation1 Credit

Introduction to the GRE, including the verbal, quantitative, and writing sections. Includes study tips, practice questions, and critical reading and writing techniques for students to improve their performance on the exam.

### SOCI 395 Independent Study1-3 Credits

Course may be taken multiple times up to maximum of 6 credit hours.

### SOCI 396 Topics1-3 Credits

Course may be taken multiple times up to maximum of 15 credit hours.

### SOCI 397 Structured Research1-3 Credits

Course may be taken multiple times up to maximum of 9 credit hours.

### SOCI 401 LSAT Preparation3 Credits

Preparation for the Law School Admissions Test (LSAT).

### SOCI 410 Death, Dying & Bereavement3 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 Practice3 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 Study1-3 Credits

Course may be taken multiple times up to maximum of 6 credit hours.

### SOCI 496 Topics1-3 Credits

Course may be taken multiple times up to maximum of 15 credit hours.

### SOCI 497 Structured Research1-3 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 Internship1-6 Credits

Course may be taken multiple times up to maximum of 15 credit hours.

## Social Work (SOWK)

### SOWK 150 Introduction to Social Work3 Credits

Introduction to the profession of social work and its historical development; overview of the knowledge, values, skills, practice settings and groups served by social workers.

### SOWK 210 Social Work for Diverse Populations3 Credits

Knowledge and skills necessary for social work practice with diverse populations. Explores issues of stereotypes, prejudice, discrimination and oppression. Examines cultural diversity in U.S. society and how to increase self-awareness related to worldviews and beliefs about diversity issues. Emphasis on empowerment of individuals and groups and on multicultural competence.

### SOWK 296 Topics:1-3 Credits

Course may be taken multiple times up to maximum of 15 credit hours.

### SOWK 301 Child Welfare3 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 Work3 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 Work3 Credits**

Analysis of specific ethical dilemmas from personal, professional and policy perspectives. Focus on ethical issues common to the social work profession and on the NASW Code of Ethics. Utilize code of ethics as guide to decision making. Explore relationship between professional ethical issues and the development of social policy.

**Prerequisites:** SOWK 150 and SOWK 210.

**SOWK 320 Social Work Practices in Mental Health3 Credits**

Practice models and methods of intervention for effective social work practice in mental health care. Includes the promotion of mental health, the prevention of mental illnesses, and delivery of psychosocial treatment and rehabilitation services.

**Prerequisites:** SOWK 150, SOWK 210, SOWK 311, and SOWK 365.

**SOWK 344 School Social Work3 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 Work3 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 365 Social Work Intervention Methods I3 Credits**

Knowledge, values, and skills for multilevel (micro, mezzo, macro) general practices. Focuses on engaging clients in the helping process, interviewing skills, assessment tools, social histories, goal writing, termination and evaluation. Addresses professional ethics and values and applying systems and ecological frameworks to practice situations. Examines strengths-based assessments, the phases of the helping relationship, and the dynamics of change in interpersonal helping relationships, within a framework of social justice and diversity.

**Prerequisites:** SOWK 150, SOWK 210, and SOWK 320. This course is only open to social majors who have been formally accepted into the BSW program.

**SOWK 375 Social Work Intervention Methods II3 Credits**

Examines generalist social work roles and techniques in group work practice. Building on interviewing and engagement skills presented in Intervention Methods I. Focuses on assessment, planning, and intervention with treatment and task groups. Emphasizes basic theory about groups and group process, demonstrates skills necessary for effective practice, explores leadership, group cohesion, and group dynamics. Uses of task and treatment groups in a broad range of settings with diverse client groups.

**Prerequisites:** SOWK 150, SOWK 210, SOWK 320, and SOWK 365. This course is only open to social work majors who have been formally accepted into the BSW program.

**SOWK 377 Spirituality and Social Work3 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 Work3 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 SW Intervention Methods III3 Credits**

Emphasizes study of skills from a problem-solving strengths and empowerment perspective with organizations and community systems. Viewed as an integral component of a model for bringing about social change, especially at the mezzo and macro levels. Attention paid to developing processes of building constituencies, mobilizing resources, networking, political participation, leadership development, and grassroots development. Introductory overview of strategies, tactics, and techniques of social change. Explores basic skills necessary to write effective grant proposals.

**Prerequisites:** SOWK 150, SOWK 210, SOWK 311, SOWK 320, SOWK 365, SOWK 375, and SOWK 387. This course is only open to social work majors who have been formally accepted into the BSW program.

**SOWK 387 Social Work Research Methods3 Credits**

Provides an overview of the principles and methods of basic social work research. Explores qualitative and quantitative research methods and how to critically consume research studies and use research findings to strengthen social work practice. Explore how quality research can assist in making important decisions about the design and implementation of projects, programs, and policies that address the social needs of diverse groups. Create research instruments for numerous purposes (e.g. intake, assessment, client satisfaction, facilitating group services, etc.)

**Prerequisites:** SOWK 150, SOWK 210, SOWK 311, and SOWK 365. This course is only open to social work majors who have been formally accepted into the BSW program.

**SOWK 394 Social Work Practicum Seminar I1 Credit**

Discussion of practicum-related issues, professional development, and exploration of learning objectives in field practicum experiences. Requires regular reporting of field activities.

**Prerequisites:** SOWK 150, SOWK 210, SOWK 320, SOWK 365, SOWK 375, SOWK 385, and SOWK 387. This course is only open to social work majors who have been formally accepted into the BSW program.

**Corequisites:** SOWK 397.

**SOWK 396 Topics:1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**SOWK 397 Social Work Practicum I5 Credits**

Involves 225 clock hours per semester. Opportunities to apply theories, techniques, and concepts through observation and participation in supervised activities. Assists in the understanding and achievement of learning objectives in field practicum experiences.

**Prerequisites:** SOWK 150, SOWK 210, SOWK 320, SOWK 365, SOWK 375, SOWK 385, and SOWK 387. This course is open only to social work majors who have been formally accepted into the BSW program.

**Corequisites:** SOWK 394.

**SOWK 460 Social Welfare Policy3 Credits**

Nature and development of American social policy. Includes history of current structures of social welfare services, the role of policy in service delivery and analysis of current social policy issues including gender policy, homelessness, health care policy, domestic poverty, and child welfare policy. Provides an overview of social policy and legislation and the processes of influencing public policy. It links policy with social work practice.

**Prerequisites:** SOWK 150, SOWK 210, SOWK 311, SOWK 320, SOWK 365, SOWK 375, SOWK 385, and SOWK 387.

**SOWK 491 Directed Readings1-5 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 III Credit**

Discussion of practicum-related issues, professional development, and exploration of learning objectives in field practicum experiences. Requires regular reporting of field activities.

**Prerequisites:** SOWK 150, SOWK 210, SOWK 320, SOWK 365, SOWK 375, SOWK 385, SOWK 387, SOWK 397, SOWK 394, and SOWK 460.

**Corequisites:** SOWK 497.

**SOWK 495 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**SOWK 497 Social Work Practicum IIS Credits**

Involves 225 clock hours per semester. Provides students with opportunities to apply theories, techniques, and concepts through observation and participation in supervised activities. Assists students in the understanding and achievement of learning objectives in their field practicum experiences.

**Prerequisites:** SOWK 150, SOWK 210, SOWK 320, SOWK 365, SOWK 375, SOWK 385, SOWK 387, SOWK 397, SOWK 394. This course is only open to social work majors who have been formally accepted into the BSW program.

**Corequisites:** SOWK 494.

**SOWK 510 History and Philosophy of Social Work3 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 Environment3 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 Practice3 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 Families3 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 Communities3 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 Practice3 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 Practice3 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 Practice3 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 Practice3 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 Families3 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 Communities3 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 III 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 III 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 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)

**SOCO 144 Marriage and Families-GTSS 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 the sociological major 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.

**SOCO 260 General Sociology-GTSS33 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-GTSS33 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 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**SOCO 300 Political Sociology3 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, or permission of instructor.

**SOCO 303 Sociological Research Methods3 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.

**SOCO 305 Environmental Sociology3 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 Religion3 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 Activism3 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.

**SOCO 314 Population3 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 Inequality3 Credits**

Causes and effects of inequality, especially social class, with consideration of race and gender.

**Prerequisites:** SOCO 260, or SOCO 264, or permission of instructor.

**SOCO 318 Sociology of Health & Illness3 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.

**SOCO 320 Life Course and Aging3 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.

**SOCO 323 Self and Society3 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 Relations3 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 Gender3 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 Sexuality3 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.

**Terms Typically Offered:** Spring.

**SOCO 351 21st Century Families3 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 Thought3 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 Perspectives3 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 Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**SOCO 396 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.



**SOCO 399 Internship1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**SOCO 420 Field Studies6 Credits****SOCO 493 Senior Capstone3 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 Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**SOCO 496 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**SOCO 499 Internship1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

## Speech (SPCH)

**SPCH 101 Interpersonal Communications3 Credits**

Exploration of multiple aspects of human behavior including the communication process, 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

**SPCH 102 Speechmaking3 Credits**

The preparation, organization, and delivery of a speech.

**Essential Learning Categories:** Humanities

**SPCH 112 Acting III: Voice and Diction3 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 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**SPCH 203 Persuasion3 Credits**

Open discussions on the ethics, process, and application of everyday use of persuasion; how it applies to advertisements, politics, and friendships; preparation for debate.

**Terms Typically Offered:** Fall, Spring.

**SPCH 241 Oral Interpretation3 Credits**

The reading aloud of prose, poetry, and essays with the intention of conveying the author's ideas to a listening audience.

**SPCH 296 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**SPCH 303 Nonverbal Communication3 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 Conflict3 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 Communication3 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 Leadership3 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 Presentations3 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 and Debate3 Credits**

Research and development of various types of debate such as student congress, mock trial, value debate, etc., using national and international topics of current interest.

**Prerequisites:** ESSL 200 or SPCH 102.

**Terms Typically Offered:** Spring.

**SPCH 395 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**SPCH 396 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**SPCH 495 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**SPCH 496 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

## Statistics (STAT)

**STAT 200 Probability and Statistics-GTMA13 Credits**

Descriptive statistical methods, elementary probability, sample distribution, binomial, normal, T and F distributions, parameter estimation, one and two sample tests of hypothesis, simple correlation and regression analysis, one-way analysis of variance, nonparametric inference, time permitting. Introduction to statistical software.

**Prerequisites:** MATH 110 or MATH 113 or permission of instructor.

**STAT 215 Statistics for Social and Behavioral Sciences4 Credits**

Descriptive and inferential statistical techniques in Social and Behavioral Sciences. Topics include: types of random variables, studies, and sampling methods; plots and descriptive statistics; correlation and regression; probability theory; hypothesis testing & inference, including one and two sample t-tests, Chi-Squared test for independence, one and two factor ANOVA, t-test for linear regression covariates. SPSS will be used for data analysis.

**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 Analysis3 Credits**

Introduction to descriptive, predictive, and inferential analysis techniques, data interpretation, business research skills, and techniques for analysis and modeling of business problems in the workplace using appropriate software.

**Prerequisites:** MATH 113 or higher.

**Equivalent Course(s):** CISB 241

**STAT 301 Computational Statistics3 Credits**

Introduction to computational methods within statistical software, with a primary focus on R, SPSS, and Excel. Topics include inference on population means and variances, sampling from probability distributions, linear regression and correlation, analysis of variance, power of statistical tests, nonparametric methods, categorical data techniques, and graphics.

**Prerequisites:** STAT 200 or STAT 215 or STAT 241 or CISB 241.

**Terms Typically Offered:** Fall, Spring.

**STAT 305 Statistics and Quality Control for Engineering3 Credits**

Introduction to descriptive and inferential statistics, and principles of quality management. Includes descriptive statistics, probability distributions, hypothesis testing, regression analysis, control charts, total quality management, quality improvement process, process capability, gauge repeatability and reproducibility, six-sigma, risk assessment, quality audit and ISO 9000.

**Prerequisites:** MATH 135 or MATH 151, and CSCI 130.

**STAT 311 Statistical Methods3 Credits**

Power of statistical tests, categorical data techniques, inference about population means and variances, nonparametric methods, simple and multiple linear regression and correlation, analysis of variance, multiple comparisons, introduction to some experimental designs. Use of statistical software.

**Prerequisites:** STAT 200.

**STAT 312 Correlation and Regression3 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. Use of statistical software.

**Prerequisites:** STAT 301.

**Terms Typically Offered:** Spring.

**STAT 313 Sampling Techniques3 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 I3 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).

**STAT 351 Mathematical Statistics II3 Credits**

This course is a continuation of STAT 350 Mathematical Statistics I. This course is a calculus-based 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.

**STAT 395 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**STAT 396 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**STAT 425 Design and Analysis of Experiments3 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 Analysis3 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 435 Introduction to Time Series3 Credits**

Statistical methods for analyzing time series. Topics include stationarity, autocorrelation, ARIMA models, spectral analysis, filtering, forecasting, and GARCH models.

**Prerequisites:** STAT 301.

**Terms Typically Offered:** Fall, Spring.

**STAT 460 Actuarial Exams Preparation3 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 492 Senior Capstone1 Credit**

Independent capstone research project under the guidance of a faculty member.

**Prerequisites:** MATH 484.

**Terms Typically Offered:** Spring.

**STAT 494 Seminar1 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 Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**STAT 496 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

## Surgical Technology (SUTE)

**SUTE 200 Medical Terminology in Surgical Technology2 Credits**

Exploration of word roots, prefixes, and suffixes 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, BIOL 209/BIOL 209L, BIOL 210/BIOL 210L, BIOL 241, and PSYC 150.

**Corequisites:** SUTE 202/SUTE 202L, SUTE 206, SUTE 210.

**Terms Typically Offered:** Fall.

**SUTE 202 Fundamentals in Surgical Technology4 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 Laboratory3 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 Technology3 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, SUTE 210.

**Terms Typically Offered:** Fall.

**SUTE 210 Safety and Equipment3 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 I4 Credits**

Exploration of surgical specialties including, but not limited to, general surgery, obstetrics and gynecologic, genitourinary, orthopedics, and neurosurgical. This course introduces the student to specialized instrumentation and surgical modalities of each surgical specialty.

**Prerequisites:** SUTE 200, SUTE 202/SUTE 202L, SUTE 206, and SUTE 210.

**Corequisites:** SUTE 212L, SUTE 218, and SUTE 220.

**Terms Typically Offered:** Spring.

**SUTE 212L Surgical Procedures I Laboratory3 Credits**

Exploration of specific surgical specialties including general surgery, obstetrics and gynecologic, genitourinary, orthopedics, and neurosurgical. This course introduces the student to the surgical specialties with a focus on a systems review of pathology in conjunction with specific procedures performed, specialized instrumentation, and surgical modalities of each surgical specialty.

**Prerequisites:** SUTE 200, SUTE 202/SUTE 202L, SUTE 206, and SUTE 210.

**Corequisites:** SUTE 212, SUTE 218, and SUTE 220.

**Terms Typically Offered:** Spring.

**SUTE 218 Specialty Surgical Procedures4 Credits**

Exploration of specific surgical specialties including, but not limited to, plastics, 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, and SUTE 220.

**Terms Typically Offered:** Spring.

**SUTE 220 Surgical Clinical I2 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 II3 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.

**Prerequisites:** SUTE 212/SUTE 212L, SUTE 218, and SUTE 220.

**Corequisites:** SUTE 240.

**Terms Typically Offered:** Summer.

**SUTE 240 Surgical Clinical III4 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, and SUTE 220.

**Corequisites:** SUTE 230.

**Terms Typically Offered:** Summer.

## Technology Integration (TECI)

**TECI 111 Healthcare Data Management and Information Systems3 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.

**TECI 118 AC Passive Circuits3 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 Laboratory1 Credit**

Lab component required for TECI 118.

**Corequisites:** TECI 118.

**TECI 120 A+ Certification Preparation3 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.

**TECI 131 Principles of Information Assurance3 Credits**

Exploration of skills and knowledge required to survey key issues associated with protecting information assets, determine the levels of protection and response to security incidents, and design 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, Spring.

**TECI 132 Introduction to IT Hardware and System Software3 Credits**

Basic hardware and software study of stand-alone or local/wide-area computers. Hands-on experience using 5x or above architecture.

**TECI 142 Internet of Things3 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:** Fall, Spring, Summer.

**TECI 163 Convergent Technologies3 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 Communications3 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 I3 Credits**

The first of four semester courses in Cisco's Networking Academy curriculum. Concepts covered are: OSI model, internetworking devices, IP addressing, LAN media and topologies, structured cabling, electronics. CCNA certified individual can perform the following tasks: -Install and configure Cisco Switches and routers in multi-protocol internetworks using LAN and WAN interfaces. -Provide Level 1 troubleshooting service -Improve network performance and security -Perform entry-level tasks in the planning, design, installation, operation, and troubleshooting of Ethernet and TCP/IP networks.

**TECI 185 Cisco Networking II3 Credits**

The 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; the Network Administrator's role and function.

**Prerequisites:** TECI 180.

**TECI 195 Independent Study1-4 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, Spring, Summer.

**TECI 202 Unix/Linux Server Administration3 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:** Fall, Spring, Summer.

**TECI 230 Cisco Networking III3 Credits**

The third of four semester courses in Cisco's Networking Academy curriculum. Concepts covered are: LAN switching; VLANs; LAN design; IGRP; Access lists; IPX/SPX; with concepts applied through design of a Threaded Case Study (TCS).

**Prerequisites:** TECI 180 and TECI 185.

**TECI 235 Cisco Networking IV3 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 Fundamentals3 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 Computing3 Credits**

Introduction to cloud computing and how to install, configure, and manage a cloud environment. Builds on knowledge of hypervisor and virtual machine environments.

**TECI 245 Security Fundamentals3 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 260 Information Technology Hardware and System Software3 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 Software3 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 Certified Network Associate, Security4 Credits**

Core and advanced security concepts and skills for Cisco networks.

**Prerequisites:** TECI 180 and TECI 185.

**Terms Typically Offered:** Fall, Spring.

**TECI 292 Capstone in Technical Engineering Planning and Economics4 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 Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

## Theatre (THEA)

**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.

**THEA 103 Introduction to Theatre Technology: Costume3 Credits**

Introduction to basic costume shop safety, organization and materials, hand and machine sewing.

**Terms Typically Offered:** Fall.

**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 Technology3 Credits**

Introduction to basic theatre sound design, protocol, and execution, including live audio technology and computer editing.

**Terms Typically Offered:** Spring.

**THEA 114 Summer Theatre3 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 Workshop1 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 117 Play Production1 Credit**

A practical course in stagecraft concerned with the production of plays. The student works in all phases of production. Students will work three hours per week unless other arrangements are made with the instructor.

**THEA 118 Play Production1 Credit**

A practical course in stagecraft concerned with the production of plays. The student works in all phases of production. Students will work three hours per week unless other arrangements are made with the instructor.

**THEA 119 Technical Performance1 Credit**

Direct participation in the technical aspects of various productions. Grade will depend upon the preparatory work involved and upon the final technical production. Students must work a minimum of two productions in order to receive credit.

**THEA 120 Technical Performance1 Credit**

Direct participation in the technical aspects of various productions. Grade will depend upon the preparatory work involved and upon the final technical production. Students must work a minimum of two productions in order to receive credit.

**THEA 128 Theatre Forums1 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 Forums1 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 Analysis3 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-GTAH13 Credits**

Examination of basic presentation techniques and history of theatre.

**Essential Learning Categories:** Fine Arts

**Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum**

**THEA 142 Make-up3 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.

**THEA 145 Introduction to Dramatic Literature-GTAH13 Credits**

Dramatic literature from classical Greeks to modern dramatists.

**Essential Learning Categories:** Fine Arts

**Colorado Guaranteed Transfer (GT) Pathways General Education Curriculum**

**THEA 147 Drama Performance1 or 2 Credits**

Requires a student to appear in a major production on campus. The grade will depend upon the preparatory work on the play's character and upon the final performance.

**Prerequisites:** Permission of instructor.

**THEA 148 Drama Performance1 or 2 Credits**

Requires a student to appear in a major production on campus. The grade will depend upon the preparatory work on the play's character and upon the final performance.

**Prerequisites:** Permission of instructor.

**THEA 150 Fundamentals of Acting3 Credits**

This course will introduce non-theatre majors to the basic components of the acting process, including scene work, improvisation, and audition techniques.

**THEA 153 Acting I: Beginning Acting3 Credits**

Fundamentals of Acting via improvisation and scene study. Students perform in solo, duo and/or group scenes.

**Prerequisites:** Theatre Arts major or minor in good standing.

**THEA 156 Acting II: Contemporary Scenework3 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 permission of instructor.

**THEA 196 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**THEA 202 Elements of Theatrical Design3 Credits**

Exposure to the elements of design in a theatrical context through lectures and projects.

**Terms Typically Offered:** Fall.

**THEA 213 Creative Play Activities-Drama2 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 Theatre3 Credits**

See THEA 114.

**THEA 216 Music Theatre Workshop1 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 217 Play Production1 Credit**

See THEA 117 or THEA 118.

**Prerequisites:** Courses must be taken in sequence or by permission of the instructor.

**THEA 218 Play Production1 Credit**

See THEA 117 or THEA 118.

**Prerequisites:** Courses must be taken in sequence or by permission of the instructor.

**THEA 219 Technical Performance1 Credit**

See THEA 119 or THEA 120.

**THEA 220 Technical Performance1 Credit**

See THEA 119 or THEA 120.

**THEA 228 Theatre Forums1 Credit**

See THEA 128 or THEA 129.

**THEA 229 Theatre Forums1 Credit**

See THEA 128 or THEA 129.

Course may be taken 10 times for credit.

**THEA 247 Drama Performance1 or 2 Credits**

Course may be taken 4 times for credit.

**THEA 248 Drama Performance1 or 2 Credits**

See THEA 147 or THEA 148.

**Prerequisites:** Permission of instructor.

**THEA 253 Acting IV: Stage Movement3 Credits**

Basic techniques of gesture, movement styles, and combat. Developing an awareness of the use of the body as a means of expression is emphasized.

**Prerequisites:** THEA 156 and SPCH 112.

**THEA 255 Musical Theatre Techniques3 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 Auditions3 Credits**

Resume writing. Choice and preparation of effective audition pieces.

**Prerequisites:** THEA 153 and THEA 156.

**THEA 296 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**THEA 300 Advanced Acting: Stage Combat2 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 Theatre3 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 Theatre3 Credits**

See THEA 114.

**THEA 316 Music Theatre Workshop1 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 317 Play Production1 Credit**

See THEA 117 or THEA 118.

**Prerequisites:** Courses must be taken in sequence or by permission of the instructor.

**THEA 318 Play Production1 Credit**

See THEA 117 or THEA 118.

**Prerequisites:** Courses must be taken in sequence or by permission of the instructor.

**THEA 319 Technical Performance1 Credit**

See THEA 119 or THEA 120.

**THEA 320 Technical Performance1 Credit**

See THEA 119 or THEA 120.

**THEA 322 Stage Management3 Credits**

Theory and principles of human resources management, theatre technical production and actual stage management situations.

**Prerequisites:** THEA 153 or THEA 243 or THEA 244 or permission of instructor.

**THEA 323 Computer Aided Drafting for the Theatre3 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 Effects3 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 Theatre3 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 Forums1 Credit**

See THEA 128 or THEA 129.

**THEA 329 Theatre Forums1 Credit**

See THEA 128 or THEA 129.

**THEA 331 Theatre History I: 400 B.C. to 16423 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 Present3 Credits**

Major world theatre events from 1642 to the present day.

**THEA 333 Art, Architecture and Fashion: Prehistory to the Present3 Credits**

Exploration of art, architecture, and fashion from Pre-History to the present.

**Terms Typically Offered:** Spring.

**THEA 340 Costume Design3 Credits**

Principles, practices, and techniques of Costume Design.

**Prerequisites:** THEA 202.

**Terms Typically Offered:** Spring.

**THEA 341 Musical Theatre History and Literature3 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 Design3 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 Design3 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 Design3 Credits**

Advanced training in the design and execution of lighting for the stage.

**Prerequisites:** THEA 202.

**Terms Typically Offered:** Fall.

**THEA 345 World Drama3 Credits**

Students will examine the richness and diversity of contemporary world theatre and drama from a global context.

**THEA 347 Drama Performance1 or 2 Credits**

**Prerequisites:** Permission of instructor.

**THEA 348 Drama Performance1 or 2 Credits**

See THEA 147 or THEA 148.

**Prerequisites:** Permission of instructor.

Course may be taken 4 times for credit.

**THEA 353 Advanced Acting: Styles in Acting3 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 Approach3 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 Repertoire3 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: Dialects3 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 Technology3 Credits**

Introduction to advanced construction techniques, basic flat patterning and draping, and interpreting a rendering into a finished garment.

**Prerequisites:** THEA 103.

**THEA 369 Improvisation2 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 Films3 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 I3 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 I3 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 II3 Credits**

Advanced directing techniques and production of a one-act play for public viewing.

**Prerequisites:** THEA 381 or permission of instructor.

**THEA 395 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**THEA 396 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**THEA 401 Career Preparation3 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 Speech3 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 Drama3 Credits**

The study of American drama and theatre trends from the first American playwright to the current trends of today.

**THEA 412 Contemporary Drama3 Credits**

A study of contemporary drama from the advent of Realism to the present day.

**THEA 414 Summer Theatre3 Credits**

See THEA 114.

**THEA 416 Music Theatre Workshop1 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 417 Play Production1 Credit**

See THEA 117 or THEA 118.

**Prerequisites:** Courses must be taken in sequence or by permission of the instructor.

**THEA 418 Play Production1 Credit**

See THEA 117 or THEA 118.

**Prerequisites:** Courses must be taken in sequence or by permission of the instructor.

**THEA 419 Technical Performance1 Credit**

See THEA 119 or THEA 120.

**THEA 420 Technical Performance1 Credit**

See THEA 119 or THEA 120.

**THEA 428 Theatre Forums1 Credit**

See THEA 128 or THEA 129.

**THEA 429 Theatre Forums1 Credit**

See THEA 128 or THEA 129.

**THEA 445 Senior Tech/Design Capstone3 Credits**

Work experience in various aspects of theatre tech/design.

**Prerequisites:** Senior standing or permission of instructor.

**THEA 446 Senior Tech/Design Capstone3 Credits**

Work experience in various aspects of theatre tech/design.

**Prerequisites:** Senior standing or permission of instructor.

**THEA 447 Drama Performance1 or 2 Credits**

**Prerequisites:** Permission of instructor.

**THEA 448 Drama Performance1 or 2 Credits**

See THEA 147 or THEA 148.

**Prerequisites:** Permission of instructor.

**THEA 453 Advanced Acting: Acting for the Camera3 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: Shakespeare3 Credits**

An in-depth exploration of acting approaches to the verse drama of Shakespeare.

**Prerequisites:** THEA 253.

**THEA 459 Advanced Acting: Chekhov Technique3 Credits**

Introduction and exploration of the Michael Chekhov Acting technique.

**Prerequisites:** THEA 256 or permission of instructor.

**THEA 490 Honors Seminar3 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 Capstone3 Credits**

Exploration of theories of audition, rehearsal and performance for upper division performance majors.

**THEA 495 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

**THEA 496 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**THEA 498 Honors Project/Thesis3 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 Internship1-9 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)

**TSTA 245 Manual Drive Trains4 Credits**

Standard repair practices for drive train components to include: clutch, transmission, transaxle, drive axle, driveline, c-v and R & R procedures.

**TSTA 247 Automatic Drive Train Service4 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.

**TSTA 265 Engine Control Services3 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, TSTC 130, and TSTC 160.

**TSTA 267 Body Controls3 Credits**

Theory, repair, and diagnosis of body accessories including air bags, electronic monitors, power seats, windows and wipers.

**Prerequisites:** TSTC 100, TSTC 130, and TSTC 160.



**TSTA 275 Alignment and Suspension Service3 Credits**

Introduction to anti-lock brake systems to include: ABS types and operation, diagnostics, traction control, stability control, regenerative braking and active braking systems.

**TSTA 286 Hybrid and Alternative Fueled Vehicles2 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.

**TSTA 287 Engine Performance and Emissions3 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 130, TSTC 160, and TSTA 265.

## Transportation Services -Core (TSTC)

**TSTC 100 Introduction to Transportation Services2 Credits**

Introduction to procedures, tool usage, basic shop safety, basic employment skills, job documentation and equipment usage.

**TSTC 101 Vehicle Service and Inspection3 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.

**TSTC 130 Electrical I2 Credits**

Introduction to electrical theory, circuits, components, testing and use of test equipment.

**TSTC 160 Electrical II2 Credits**

Study of electronic control systems applied to today's modern vehicles. Emphasis on sensors, actuators, and diagnostic techniques.

**TSTC 170 Chassis Fundamentals2 Credits**

Introduction to front and rear suspension systems, including: steering front end geometry, maintenance, light repair and component nomenclature.

**TSTC 171 Brakes I2 Credits**

Theory, components, general repair practices and diagnosis of current brake systems.

## Transportation Services -Diesel (TSTD)

**TSTD 177 Air Systems Repair and Service2 Credits**

This course studies the air systems on the heavy duty truck. The brakes, transmission shift, seats, and rear axle shift will be covered, to include, service and repair of components and systems. Repair of foundation brakes will also be included.

**TSTD 265 Diesel Engine Controls3 Credits**

Repair and diagnosis of engine control systems with an emphasis on scan tool diagnosis and live hands-on repair of systems.

**TSTD 275 Heavy Duty Suspension2 Credits**

Types of on-road suspensions, tires, repair of components, diagnosis, measurements, and adjustments to front and rear suspensions.

## Transportation Services-General (TSTG)

**TSTG 120 Industrial Safety Practices2 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.

**TSTG 135 Starting and Charging Systems2 Credits**

Electrical component repair to include: alternators, starters, wiring, and other electrical components.

**Prerequisites:** TSTC 100, TSTC 101, TSTC 130, and TSTC 160.

**TSTG 150 Fluid Power3 Credits**

Principles of hydraulics and pneumatic system including the construction, application, repair, maintenance and troubleshooting of components and systems.

**TSTG 175 Brakes II2 Credits**

Repair of brake systems to include: shoes, pads, cylinder reconditioning, machining rotors and drums, diagnosis, bleeding, R & R components, parking brakes and anti-lock systems.

**TSTG 195 Climate Control4 Credits**

Repair, diagnosis, R & R of components, 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.

**TSTG 215 Engine Reconditioning5 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.

**TSTG 220 Workplace Skills3 Credits**

Employment skills encompassing leadership, goal setting, personal traits, conflict resolution, quality, time management, life-long learning, written and oral communication, and customer relations.

**TSTG 240 Job Shop4 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 or permission of instructor.

**TSTG 270 Practical Applications4 Credits**

Designed to increase student competency through the use of internships or co-op training and real-life shop experiences in their chosen area specialty.

**Prerequisites:** Permission of instructor.

**TSTG 275 ABS Diagnostics2 Credits**

Introduction to anti-lock brake systems to include: ABS types and operation, diagnostics, traction control, stability control, regenerative braking and active braking systems.

**Prerequisites:** TSTC 100, TSTC 130, TSTC 160, TSTC 171, and TSTG 175.

**TSTG 296 Topics1 or 2 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

## University College (UNIV)

### UNIV 096 Gearing Up For College1-3 Credits

#### UNIV 100 College Success Skills1 Credit

Introduction to fundamental learning skills for Provisional Baccalaureate 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 Success2 Credits

Assistance and guidance for students in maximizing their potential for success in college by promoting their academic growth. Emphasizes test taking, reading techniques, note taking, and memory as well as the following: critical thinking, stress management, utilization of campus resources, goal setting, relationship of academic planning to career goals, career exploration and other topics.

#### UNIV 102 Community College Success2 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 II1 Credit

Continued support strategies for students in the second semester of college.

**Prerequisites:** UNIV 102.

#### UNIV 104 Beyond College Success1 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 Development1 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 196 Topics1-3 Credits

Course may be taken multiple times up to maximum of 15 credit hours.

#### UNIV 201 Theory and Practice of College Peer Tutoring3 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 Experience2 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)

### UASP 101 UAS Pilot Ground School3 Credits

Exploration of Unmanned Aircraft Systems (UAS). Includes history and terminology, all aspects of legal compliance, and what UAS can do.

Includes programming and flying indoor UAS.

**Terms Typically Offered:** Fall, Spring, Summer.

### UASP 110 UAS Pilot License Preparation3 Credits

Detailed study of requirements for UAS Pilot License. All topics on the FAA Remote Pilot - Small Unmanned Aircraft Systems Knowledge Test are covered in-depth. Special emphasis on chart reading and navigation.

**Terms Typically Offered:** Fall, Spring, Summer.

### UASP 120 UAS Pilot Operations and Applications3 Credits

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, Spring, Summer.

## Veterinary Technology (VETT)

### VETT 102 Veterinary Medical Terminology2 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 Handling2 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 280.

**Corequisites:** VETT 115, VETT 206/VETT 206L, VETT 223, VETT 224, VETT 241, and VETT 281.

**Terms Typically Offered:** Fall.

### VETT 108 Introduction to Laboratory Procedures3 Credits

Biology, clinical appearance, and laboratory diagnosis of parasitic diseases of veterinary and zoonotic importance.

**Corequisites:** VETT 102, VETT 109, VETT 116 and VETT 120.

**Terms Typically Offered:** Spring.

### VETT 109 Applied Companion Animal Behavior3 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 Technicians2 Credits

Background in veterinary medicine, including familiarity with instruments, surgical support equipment, and proficiency in the proper preparation of the operating room.

**Prerequisites:** VETT 280.

**Corequisites:** VETT 106, VETT 206/VETT 206L, VETT 223, VETT 224, VETT 241, and VETT 281.

**Terms Typically Offered:** Fall.

**VETT 116 Humane Treatment and Handling of Animals3 Credits**

Introduction to animal welfare and humane treatment during handling and restraint. Also covers behavior, safety, equipment choice, and typical clinical procedures.

**Corequisites:** VETT 102, VETT 108, VETT 109, and VETT 120.

**Terms Typically Offered:** Spring.

**VETT 120 Office Procedures and Relations2 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 Imaging2 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, VETT 108, VETT 109, VETT 116, and VETT 120.

**Corequisites:** VETT 172, VETT 205/VETT 205L, and VETT 280.

**Terms Typically Offered:** Summer.

**VETT 172 First Year Clinical Basics2 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 102, VETT 108, VETT 109, VETT 116, and VETT 120.

**Corequisites:** VETT 134, VETT 205/VETT 205L, and VETT 280.

**Terms Typically Offered:** Summer.

**VETT 205 Veterinary Anatomy and Physiology I3 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, VETT 108, VETT 109, VETT 116, and VETT 120.

**Corequisites:** VETT 134, VETT 172, VETT 205L, and VETT 280.

**Terms Typically Offered:** Summer.

**VETT 205L Veterinary Anatomy and Physiology I Laboratory1 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, VETT 108, VETT 109, VETT 116, and VETT 120.

**Corequisites:** VETT 134, VETT 172, VETT 205, and VETT 280.

**Terms Typically Offered:** Summer.

**VETT 206 Veterinary Anatomy and Physiology II3 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 280.

**Corequisites:** VETT 106, VETT 115, VETT 206L, VETT 223, VETT 224, VETT 241, and VETT 281.

**Terms Typically Offered:** Fall.

**VETT 206L Veterinary Anatomy and Physiology II Laboratory1 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 280.

**Corequisites:** VETT 106, VETT 115, VETT 206, VETT 223, VETT 224, VETT 241, and VETT 281.

**Terms Typically Offered:** Fall.

**VETT 223 Introduction to Anesthesia1 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 280.

**Corequisites:** VETT 106, VETT 115, VETT 206/VETT 206L, VETT 224, VETT 241, and VETT 281.

**Terms Typically Offered:** Fall.

**VETT 224 Pharmacology for Veterinary Technicians3 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 280.

**Corequisites:** VETT 106, VETT 115, VETT 206/VETT 206L, VETT 223, VETT 241, and VETT 281.

**Terms Typically Offered:** Fall.

**VETT 225 Anesthesiology3 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 109 and VETT 281.

**Corequisites:** VETT 227, VETT 232, VETT 238, VETT 239, VETT 242, VETT 250, and VETT 275.

**Terms Typically Offered:** Spring.

**VETT 227 Animal Nutrition2 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 109 and VETT 281.

**Corequisites:** VETT 225, VETT 232, VETT 238, VETT 239, VETT 242, VETT 250, and VETT 275.

**Terms Typically Offered:** Spring.

**VETT 232 Veterinary Dentistry1 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 109 and VETT 281.

**Corequisites:** VETT 225, VETT 227, VETT 238, VETT 239, VETT 242, VETT 250, and VETT 275.

**Terms Typically Offered:** Spring.

**VETT 238 Small Animal Nursing2 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 109 and VETT 281.

**Corequisites:** VETT 225, VETT 227, VETT 232, VETT 239, VETT 242, VETT 250, and VETT 275.

**Terms Typically Offered:** Spring.

**VETT 239 Large Animal Nursing3 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 109 and VETT 281.

**Corequisites:** VETT 225, VETT 227, VETT 232, VETT 238, VETT 242, VETT 250, and VETT 275.

**Terms Typically Offered:** Spring.

**VETT 241 Clinical Laboratory Procedures4 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 280.

**Corequisites:** VETT 106, VETT 115, VETT 206/VETT 206L, VETT 223, VETT 224, and VETT 281.

**Terms Typically Offered:** Fall.

**VETT 242 Veterinary Critical Care2 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 109 and VETT 281.

**Corequisites:** VETT 225, VETT 227, VETT 232, VETT 238, VETT 239, VETT 250, and VETT 275.

**Terms Typically Offered:** Spring.

**VETT 243 Veterinary Diagnostic Microbiology3 Credits**

Introduction to the biology, clinical appearance, and laboratory diagnosis of bacterial and viral diseases of veterinary and zoonotic importance.

**Prerequisites:** VETT 275.

**Corequisites:** VETT 282 and VETT 285.

**Terms Typically Offered:** Summer.

**VETT 250 Clinical Competency Evaluation1 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 109 and VETT 281.

**Corequisites:** VETT 225, VETT 227, VETT 232, VETT 238, VETT 239, VETT 242, and VETT 275.

**Terms Typically Offered:** Spring.

**VETT 275 Specialty Rotation2 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 109 and VETT 281.

**Corequisites:** VETT 225, VETT 227, VETT 232, VETT 238, VETT 239, VETT 242, and VETT 250.

**Terms Typically Offered:** Spring.

**VETT 280 Diagnostic Imaging Clinical1 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, VETT 108, VETT 109, VETT 116, and VETT 120.

**Corequisites:** VETT 134, VETT 172, and VETT 205/VETT 205L.

**Terms Typically Offered:** Summer.

**VETT 281 Clinical I2 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 280.

**Corequisites:** VETT 106, VETT 115, VETT 206/VETT 206L, VETT 223, VETT 224, and VETT 241.

**Terms Typically Offered:** Fall.

**VETT 282 Clinical II3 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.

**Corequisites:** VETT 243 and VETT 285.

**Terms Typically Offered:** Summer.

**VETT 285 Veterinary Technician Exam Prep1 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 275.

**Corequisites:** VETT 243 and VETT 282.

**Terms Typically Offered:** Summer.

## Viticulture and Enology (VITE)

### VITE 101 Introduction to Wine3 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 Chemistry3 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 Management3 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 Laboratory1 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.

### VITE 205 Wine Business and Marketing3 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 Science3 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 Laboratory1 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.

### VITE 250 Advanced Winemaking 14 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.

### VITE 255 Viticulture Harvest and Post-Harvest Management2 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 Laboratory1 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.

### VITE 260 Science of Winemaking3 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.

### VITE 265 Wines of the World2 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.

### VITE 270 Sensory Analysis of Wine3 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 varieties, 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.

### VITE 280 Advanced Winemaking II3 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.

### VITE 299 Winery Internship3 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.

# Water Quality Mgmt (WQMS)

## **WQMS 100 Introduction to Water Quality3 Credits**

Introduction to the water and wastewater treatment field and the various applied science concepts that are used to operate, maintain and monitor water quality; includes the hydrological cycle, water sources, hydraulics, ecosystems, pollution, water chemistry, water calculations, microbiological aspects of water and water quality control.

## **WQMS 105 Specific Calculations for Water Quality Management4 Credits**

An in-depth study of the calculations associated with water and wastewater treatment; includes dimensional analysis, manipulation of conversation factors, geometric figures, velocities, detention time, surface loading, filtration and backwash rates, porosity, weir overflow rates, efficiencies, weight of dry solids, sludge pumping, settleable solids, volatile solids, mean cell residence times, settleability, disinfection and chemical dosage as relating to trickling filters, ponds, RBC, and activated sludge.

## **WQMS 106 Mechanical/Physical Treatment3 Credits**

Introduction to wastewater treatment; includes the technician and their responsibility, effects of waste discharges, natural cycles, solids in waste discharges, natural cycles, solids in wastewater, NPDES permits, collection systems, pretreatment, primary treatment, secondary treatment, advanced treatment, flow measuring, solids handling and disposal.

## **WQMS 109 Water Distribution3 Credits**

Purpose, selection and location of water storage facilities and the operation and maintenance of related equipment; includes storage facilities and capabilities, booster pumps, water mains and appurtenances, joints, pipe protection and installation, valves, fittings, hydrants, quality standards, contaminants and degradation inspection and monitoring, system troubleshooting, surveillance, cross connections, pressure main breaks, corrosion control, disinfection and emergency planning.

## **WQMS 116 Conventional Surface Water Treatment3 Credits**

Coagulation, flocculation, sedimentation, filtering, corrosion and taste and odors; includes descriptions, operating procedures, associated calculations, start-up and shut down procedures, laboratory tests, troubleshooting, maintenance, safety and records.

## **WQMS 118 Wastewater Collection Systems3 Credits**

Purpose, components and design of collection systems; including safety procedures, inspection and testing, pipeline cleaning and maintenance, underground repair, lift stations and sewer rehabilitation.

## **WQMS 119 Basic Water Quality Analysis4 Credits**

Relation of laboratory control tests to the chemistry of water and wastewater treatment. Students gain the skills and techniques to operate within a laboratory; includes laboratory equipment and instrumentation-identification, set-up and calibration, safety, sample collection and preservation, written reports and laboratory tests. Laboratory testing includes hardness, alkalinity, dissolved oxygen, biochemical oxygen demand, chlorine residual, pH, phosphorus, dissolved solids, total solids, suspended solids, turbidity, Langlier index, fluoride and biomonitoring.

## **WQMS 125 Wastewater Certification Review for Class C & D3 Credits**

Preparation of students for the operator's certification test in wastewater at the C and D level. Topics include wastewater principles, mathematics, hydraulics, conventional treatment of wastewater, wastewater sedimentation, Colorado Water Quality Control Act, biological treatment of wastewater, effluent standards for wastewater, sludge handling and disposal, disinfection, pumps, safety, housekeeping, and laboratory analysis.

## **WQMS 126 Safety and Security Systems3 Credits**

Exploration of all applied safety aspects in the water and wastewater industry. Topics include development of safety policies and programs, job safety orientation, driving practices, CPR/First Aid, Permit Required Confined Spaces (PRCS), air monitoring and displacement requirements, treatment equipment, construction vehicles/equipment, chlorine and other chemical handling, and security and safety standards as determined by the Bioterrorism Preparedness Act of 2002.

## **WQMS 127 Water Quality Utility Management3 Credits**

Introduction to the fundamental business practices that are utilized in managing a water or wastewater utility. Topics include the functions of a manager, planning, organizing, staffing, public relations, financial management, regulatory compliance, safety, and operations and maintenance from a management perspective.

## **WQMS 150 Troubleshooting in Water Quality3 Credits**

Exploration of troubleshooting practices and procedures for chemical adjustments, equipment failures (electrical, mechanical, pneumatic and hydraulic), source contamination, system control procedures, and redundancies.

## **WQMS 195 Independent Study1-3 Credits**

Course may be taken multiple times up to maximum of 6 credit hours.

## **WQMS 200 Hydraulics for Water Quality Management4 Credits**

Introduction to the mathematical principles of density, specific gravity, pressures, horsepower and energy costs, velocities, weirs, parshall flumes, venturi meters, California Pipe method, flows from open end pipes, settling velocities and classification of flows.

**Terms Typically Offered:** Fall, Spring.

## **WQMS 202 Small Water Systems Operation and Maintenance3 Credits**

Introduction to the practical, hands-on aspects of the safe and effective operation and maintenance of small water system collection, treatment, and disposal. Topics include the safe operation and maintenance of small water treatment plants, lift stations, and other facilities.

## **WQMS 203 Water Quality Small Wastewater Systems3 Credits**

Introduction to the practical, hands-on aspects of the safe and effective operation and maintenance of small wastewater collection, treatment, and disposal systems. Topics include the safe operation and maintenance of small water treatment plants, lift stations and other facilities, and maintenance and rehabilitation of collection facilities for the small wastewater system operator.

## **WQMS 212 Drinking Water Regulations4 Credits**

Knowledge and skills to establish a compliance program for a water treatment facility using ground water, surface water, or ground water influenced by surface water sources. The student will learn all regulatory requirements for microbiological and chemical contamination (organic, inorganic, and radio) for monitoring and reporting operations.

## **WQMS 216 Biological and Bacteriological Water Quality Analyses4 Credits**

Exploration of microorganisms associated with all phases and concerns of water and wastewater treatment including bacteria, protozoa, and algae. Topics include: microorganisms used in treatment, pathogenic indicators, regulations, health hazards and laboratory safety. Laboratory work involves media preparation, coliform testing, standard plate count, algae identification, activated sludge examination, volatile acids/alkalinity and biomonitoring.

## Welding (WELD)

### WELD 110 Shielded Metal Arc Welding4 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.

### WELD 111 Shielded Metal Arc Welding 24 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.

### WELD 114 Oxy-Fuel Welding & Brazing2 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.

### WELD 117 Oxy-Fuel and Plasma Arc Cutting2 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.

### WELD 133 Fabrication & Blueprints for Welders4 Credits

Study and skill development of metal fabrication methods. Lecture and laboratory. Measuring tools and techniques, welding shop mathematics, blueprint reading, welding symbols, sheet metal and steel plate fabrication project layout methods applied. Basic blacksmithing techniques and ornamental iron layout included. Structural and pipe connection layout methods introduced.

### WELD 151 Introduction to Welding3 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.

### WELD 196 Topics:1-3 Credits

Course may be taken multiple times up to maximum of 15 credit hours.

### WELD 201 Gas Metal Arc Welding4 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.

### WELD 203 Flux Cored Arc Welding4 Credits

Study and skill development of safe practices, welding theory, and principles of Flux Cored Arc Welding equipment and process. FCAW fillet and groove welds with self-shielded and gas-shielded processes will be covered.

### WELD 230 Gas Tungsten Arc Welding4 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.

### WELD 240 Pipe Welding4 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

### WELD 261 Testing and Inspection3 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 Applications3 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.

### WELD 275 Automation4 Credits

Study and skill development of safe practices, welding theory, and principles of robotic welding and CNC plasma cutting equipment and processes. Basic programming, setup, and systems integration will be included. Other automation equipment and processes may be included.

**Prerequisites:** WELD 117 and WELD 201.

### WELD 295 Independent Study1 or 2 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 Internship1-14 Credits

Course may be taken multiple times up to maximum of 6 credit hours.

## Wildland Fire Management (FSWM)

### FSWM 100 Introduction to Wildland Fire Basic Fire Guard School4 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.

### FSWM 103 Expanded Dispatch Recorder1 Credit

The 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.

### FSWM 141 Introduction to Incident Information2 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.

**FSWM 142 Portable Pumps and Water Use2 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.

**FSWM 143 Wildfire Chain Saws2 Credits**

Introduction to the function, maintenance and use of internal combustion, engine-powered chain saws and their tactical wildland fire application. Modules support entry-level training for firefighters with little or no previous experience in operating a chain saw and provides hands-on cutting in surroundings similar to fireline situations. This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training classes: S-212.

**FSWM 144 Fire Operations in the Wildland/Urban Interface2 Credits**

Emphasizes the tactical decisions made by structure and wildland firefighters when confronting fire that threatens life, property, and improvements in the wildland/urban interface. Instructional units include interface awareness, size up, initial strategy and incident action plan, structure triage, structure protection tactics, incident action plan assessment and update, follow up and public relations, and firefighter safety in the interface. This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training class: S-215.

**FSWM 147 Ignition Operations2 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. This course also addresses the role of the ignition specialist or firing boss as the organization manages escalation from a non-complex to a complex situation. This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training class: S-234.

**FSWM 148 Status/Check-In Recorder1 Credit**

Introduces students to the tools and techniques used to perform duties of status check-in recorder (SCKN). The course provides an overview of what a student can expect if dispatched to an incident. Each student will need access to a computer that has the most current incident automation software. This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training Program class S-248.

**FSWM 149 Interagency Incident Business Operations1 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.

**FSWM 151 Basic Air Operations1 Credit**

Covers aircraft types and capabilities, aviation management and 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.

**FSWM 152 Helicopter Crew Member2 Credits**

Proficiency in all areas of the tactical and logistical use of helicopters to achieve efficiency and standardization. Topics include: aviation safety, aircraft capabilities and limitations, aviation life support equipment, aviation mishap reporting, pre-flight checklist and briefing/debriefing, aviation transportation of hazardous materials, crash survival, helicopter operations, helicopter field exercise. This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training program class S-271.

**FSWM 153 Intermediate Wildland Fire Behavior2 Credits**

Prepares the prospective supervisor 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.

**FSWM 154 Wildland Fire Origin & Cause Determination2 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 System2 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.

**FSWM 156 Firefighter Type 1 and Fire Line Leadership2 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.

**FSWM 162 Advanced Firefighter Position Task Book3 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.

**FSWM 196 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**FSWM 200 Extended Attack Incident Commander1 Credit**

Covers the 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.

**FSWM 204 Medical Unit Leader1 Credit**

Covers the skills and information needed to perform in the role of medical unit leader (MEDL). This course consists of the curriculum and activities included in the National Wildfire Coordinating Group Firefighting Training program class S-359.



**FSWM 243 Fire Engine Operator3 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.

**FSWM 244 Wildland Training for Structural Fire Fighters2 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 Experience1-3 Credits**

**FSWM 296 Topics1-3 Credits**

Course may be taken multiple times up to maximum of 15 credit hours.

**FSWM 299 Internship1-3 Credits**

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. 68) 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 - 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.
- 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 Arts in Mass Communication with a double concentration in Print Media and Public Relations). 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.

## 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. 742).

## 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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